CDP-M333ES/M555ES

SERVICE MANUAL

US Model
Canadian Model

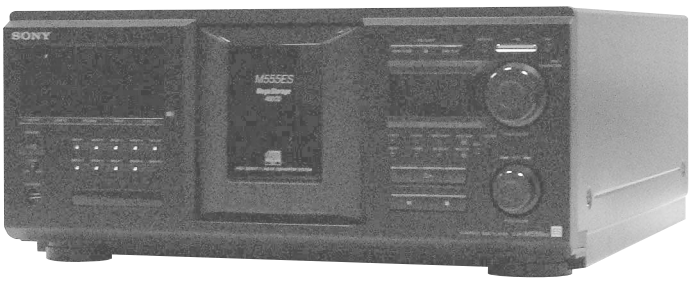

Photo: CDP-M555ES

Model Name Using Similar Mechanism	NEW
CD Mechanism Type	CDM62-K1BD35B
Base Unit Name	BU-K1BD35B
Optical Pick-up Name	KSM-213BFN/C2NP

SPECIFICATIONS

Compact disc player

Laser Semiconductor laser (λ = 780 nm)
Emission duration: continuous

Laser output Max 44.6 µW*
* This output is the value measured at a distance of 200 mm from the objective lens surface on the Optical Pick-up block with 7 mm aperture.

Frequency response 2 Hz to 20 kHz ±0.5 dB

Dynamic range More than 95 dB

Harmonic distortion Less than 0.003%

Output

	Jack type	Maximum output level	Load impedance
LINE OUT	Phono jacks	2 V (at 50 kilohms)	Over 10 kilohms
DIGITAL OUT (OPTICAL)	Optical output connector	–18 dBm	Wave length: 660 nm
MONITOR OUT (CDP-M555ES)	Phono jacks	1 Vp-p	75 ohms, unbalanced sync negative

General

Power requirements 120 V AC, 60 Hz

Power consumption 20 W (CDP-M333ES)
23 W (CDP-M555ES)

Dimensions (approx.) (w/h/d) 430 × 189 × 537 mm
(17 × 7 1/2 × 21 1/4 in.) incl. projecting parts

Mass (approx.) 9.5 kg (20 lbs 16 oz.)

Supplied accessories

- Audio cord (1)
- Video cord (1) (CDP-M555ES)
- Monaural (2P) mini-plug cord (1) (Connecting cord for CONTROL A1II) (supplied for Canadian models only)
- Remote commander (remote) (1)
- Size AA (LR6) batteries (3)

Design and specifications are subject to change without notice.

COMPACT DISC PLAYER

SONY®

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SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage.
Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes.). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

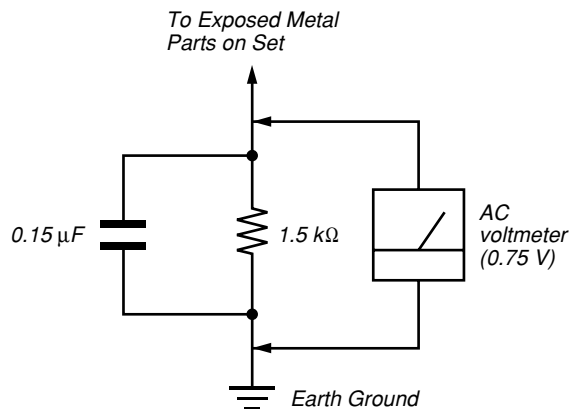


Fig. A. Using an AC voltmeter to check AC leakage.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1
SERVICING NOTES

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.
During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.
The flexible board is easily damaged and should be handled with care.

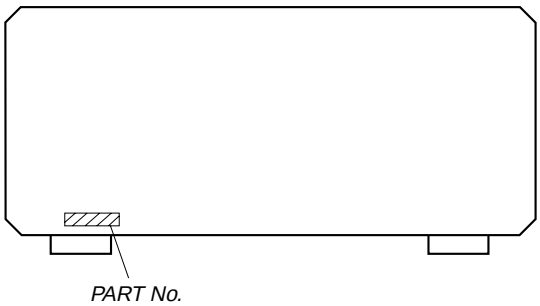
NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the “S-curve check” in “Electrical adjustment” and check that the S-curve waveforms is output three times.

MODEL IDENTIFICATION
— BACK PANEL —



PART No.	MODEL
4-227-531-0 □	M333ES: US model
4-227-531-1 □	M333ES: Canadian model
4-227-531-2 □	M555ES: US model
4-227-531-3 □	M555ES: Canadian model

CD-TEXT TEST DISC

This unit is able to display the TEXT data (character information) written in the CD on its fluorescent indicator tube.
The CD-TEXT TEST DISC (TGCS-313:J-2501-126-A) is used for checking the display.
To check, perform the following procedure.

Checking Method:

1. Turn ON the power, set the disc on the disc table with the side labeled as “test disc” as the right side, close the front cover, and chuck the disc.
2. The following will be displayed on the fluorescent indicator tube. (The display switches each time the SCROOL button is pressed.)
   Display: CD TEXT TEST DISC (Album Title)
3. Press the ▷ button and play back the disc.
4. The following will be displayed on the fluorescent indicator tube. (If nothing is displayed, press the SCROOL button.)
   Display: 1 kHz/0 dB/ L&R
5. Rotate I◀◀AMS▶▶I knob to switch the track. The text data of each track will be displayed.
   For details of the displayed contents for each track, refer to “Table 1: CD-TEXT TEST DISC Text Data Contents” and “Table 2: CD-TEXT TEST DISC Recorded Contents and Display”.

Restrictions in CD-TEXT Display

In this unit, some special characters will not be displayed properly. These will be displayed as a space or a character resembling it. For details, refer to “Table 2: CD-TEXT DISC Recorded Contents and Display”.

Table 1: CD-TEXT TEST DISC Text Data Contents (TRACKS No. 1 to 41:Normal Characters)

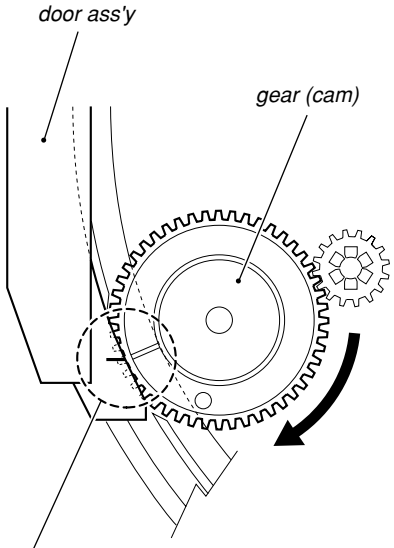
TRACK No.	Displayed Contents	TRACK No.	Displayed Contents
1	1 kHz/0 dB/L&R	22	1 kHz/-90 dB/L&R
2	20 Hz/0 dB/L&R	23	Infinity Zero w/o emphasis//L&R
3	40 Hz/0 dB/L&R	24	Infinity Zero with emphasis//L&R
4	100 Hz/0 dB/L&R	25	400 Hz+7 kHz(4:1)/0 dB/L&R
5	200 Hz/0 dB/L&R	26	400 Hz+7 kHz(4:1)/-10 dB/L&R
6	500 Hz/0 dB/L&R	27	19 kHz+20 kHz(1:1)/0 dB/L&R
7	1 kHz/0 dB/L&R	28	19 kHz+20 kHz(1:1)/-10 dB/L&R
8	5 kHz/0 dB/L&R	29	100 Hz/0 dB/L*
9	7 kHz/0 dB/L&R	30	1 kHz/0 dB/L*
10	10 kHz/0 dB/L&R	31	10 kHz/0 dB/L*
11	16 kHz/0 dB/L&R	32	20 kHz/0 dB/L*
12	18 kHz/0 dB/L&R	33	100 Hz/0 dB/R*
13	20 kHz/0 dB/L&R	34	1 kHz/0 dB/R*
14	1 kHz/0 dB/L&R	35	10 kHz/0 dB/R*
15	1 kHz/-1 dB/L&R	36	20 kHz/0 dB/R*
16	1 kHz/-3 dB/L&R	37	100 Hz Squer Wave//L&R
17	1 kHz/-6 dB/L&R	38	1 kHz Squer Wave//L&R
18	1 kHz/-10 dB/L&R	39	1 kHz w/emphasis/-0.37 dB/L&R
19	1 kHz/-20 dB/L&R	40	5 kHz w/emphasis/-4.53 dB/L&R
20	1 kHz/-60 dB/L&R	41	16 kHz w/emphasis/-9.04 dB/L&R
21	1 kHz/-80 dB/L&R		

Note: The contents of Track No. 1 to 41 are the same as those of the current TEST DISC-their titles are displayed.

Table 2: CD-TEXT TEST DISC Recorded Contents and Display
(In this unit, some special characters cannot be displayed. This is no a fault.)

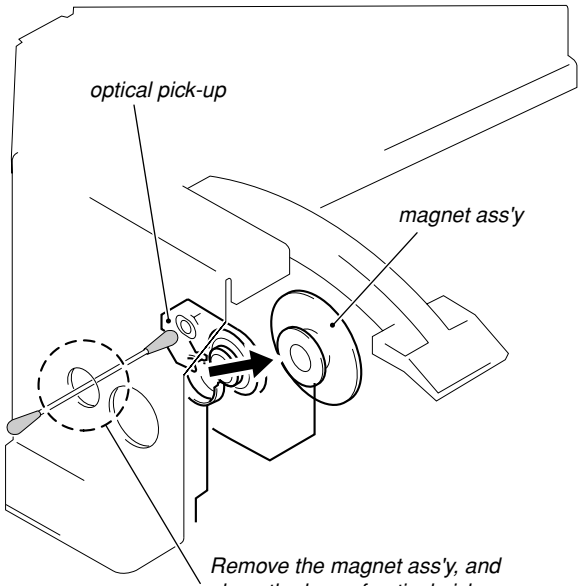
TRACK No.	Recorded Contents	Displayed Contents
42	! " # $ % & ´ (21h to 27h) 1kHz 0dB L&R	← All the same
43	( ) * + , – . / (28h to 2Fh)	← All the same
44	0 1 2 3 4 5 6 7 (30h to 37h)	← All the same
45	8 9 : ; < = > ? (38h to 3Fh)	← All the same
46	@ A B C D E F G (40h to 47h)	← All the same
47	H I J K L M N O (48h to 4Fh)	← All the same
48	P Q R S T U V W (50h to 57h)	← All the same
49	X Y Z [¥] ^ _ (58h to 5Fh)	X Y Z [\ ] ^ _ (58····
50	` a b c d e f g (60h to 67h)	← All the same
51	h i j k l m n o (68h to 6Fh)	← All the same
52	p q r s t u v w (70h to 77h)	← All the same
53	x y z { l } ~ □ (78h to 7Fh)	x y z { l } ~ (78····
54	□ ¡ ¢ £ ¤ ¥ ¦ § (A0h to A7h) 8859-1	¡ ¢ £ ¤ ¥ ¦ § (A0···· □is not displayed
55	♪ © ª « ¬ ® ¯ (A8h to AFh)	♪ (A8···· © ª « ¬ ® ¯ are not displayed
56	· ± ² ³ ´ µ ¶ · (B0h to B7h)	´ µ · (B0···· · ± ² ³ ¶ are not displayed
57	† ¹ º » ¼ ½ ¾ ¿ (B8h to BFh)	† ¿ (B8···· ¹ º » ¼ ½ ¾ are not displayed
58	À Á Â Ã Ä Å Æ Ç (C0h to C7h)	← All the same
59	È É Ê Ë Ì Í Î Ï (C8h to CFh)	← All the same
60	D Ñ Ò Ó Ô Õ Ö × (D0h to D7h)	← All the same
61	Ø Ù Ú Û Ü Y Þ ß (D8h to DFh)	Φ Ù Ú Û Ü Y Þ ß (D8····
62	à á â ã ä å æ ç (E0h to E7h)	← All the same
63	è é ê ë ì í î ï (E8h to FFh)	← All the same
64	ð ñ ò ó ô õ ö ÷ (F0h to F7h)	ð ñ ò ó ô õ ö ÷ (F0····
65	ø ù ú û ü y þ ÿ (F8h to FFh)	← All the same
66	No.66	← All the same
67	No.67	← All the same
to	to	to
99	No.99	← All the same

ALIGNMENT OF GEAR (CAM) PHASE WITH DOOR ASS'Y



Align a slit of door ass'y with a marking on the bottom land of gear tooth when the gear is rotated fully in arrow direction, as shown.

CLEANING OF OPTICAL PICK-UP

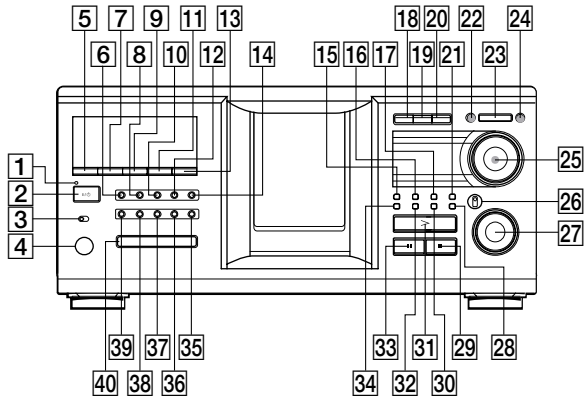


Remove the magnet ass'y, and clean the lens of optical pick-up through this hole.

SECTION 2
GENERAL

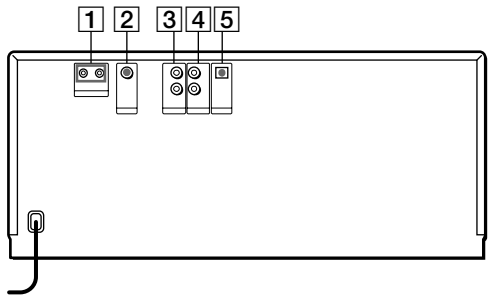
• LOCATION OF CONTROLS

– Front Panel –



1 STANDBY indicator
2 I/⏻ button
3 TIMER switch
4 KEYBOARD jack
5 CONTINUE button
6 GROUP1 button and indicator
7 SHUFFLE button
8 GROUP2 button and indicator
9 PROGRAM button
10 GROUP3 button and indicator
11 REPEAT button
12 GROUP4 button and indicator
13 SCROLL button
14 HIT LIST button and indicator
15 CHECK button
16 CLEAR button
17 NAME SEARCH button
18 OPEN/CLOSE button
19 ⏏ button
20 EASY PLAY button and indicator
21 ARTIST MODE button and indicator
22 MENU/NO button
23 +100 button
24 YES button
25 DISC/CHARACTER PUSH ENTER knob and button
26 FILTER switch
27 I◀◀ AMS ▶▶I PUSH ENTER knob and button
28 MEGA CTRL button and indicator
29 ■ button
30 NO DELAY button
31 ▷ button and indicator
32 X-FADE button
33 ❚❚ button and indicator
34 FADER button
35 GROUP FILE button
36 GROUP8 button and indicator
37 GROUP7 button and indicator
38 GROUP6 button and indicator
39 GROUP5 button and indicator
40 IR Repeater window (M555ES)

– Rear Panel –

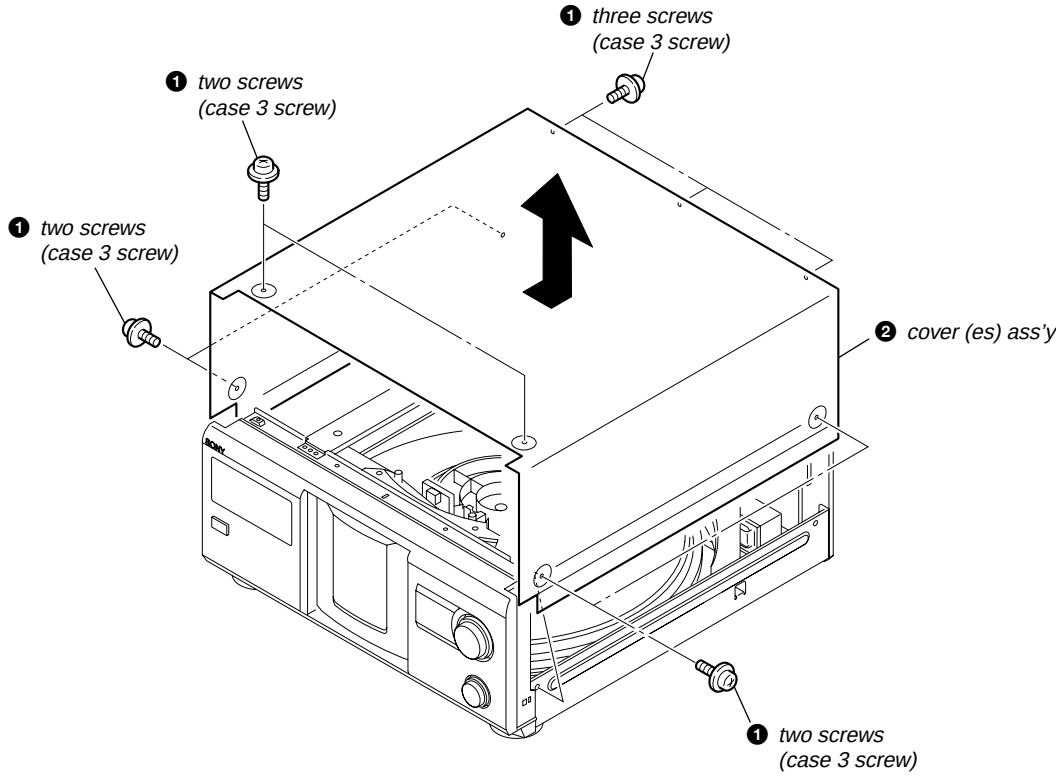


1 CONTROL A1II jack
2 MONITOR OUT jack (M555ES)
3 2ND CD IN jack
4 ANALOG OUT jack
5 DIGITAL OUT OPTICAL output terminal

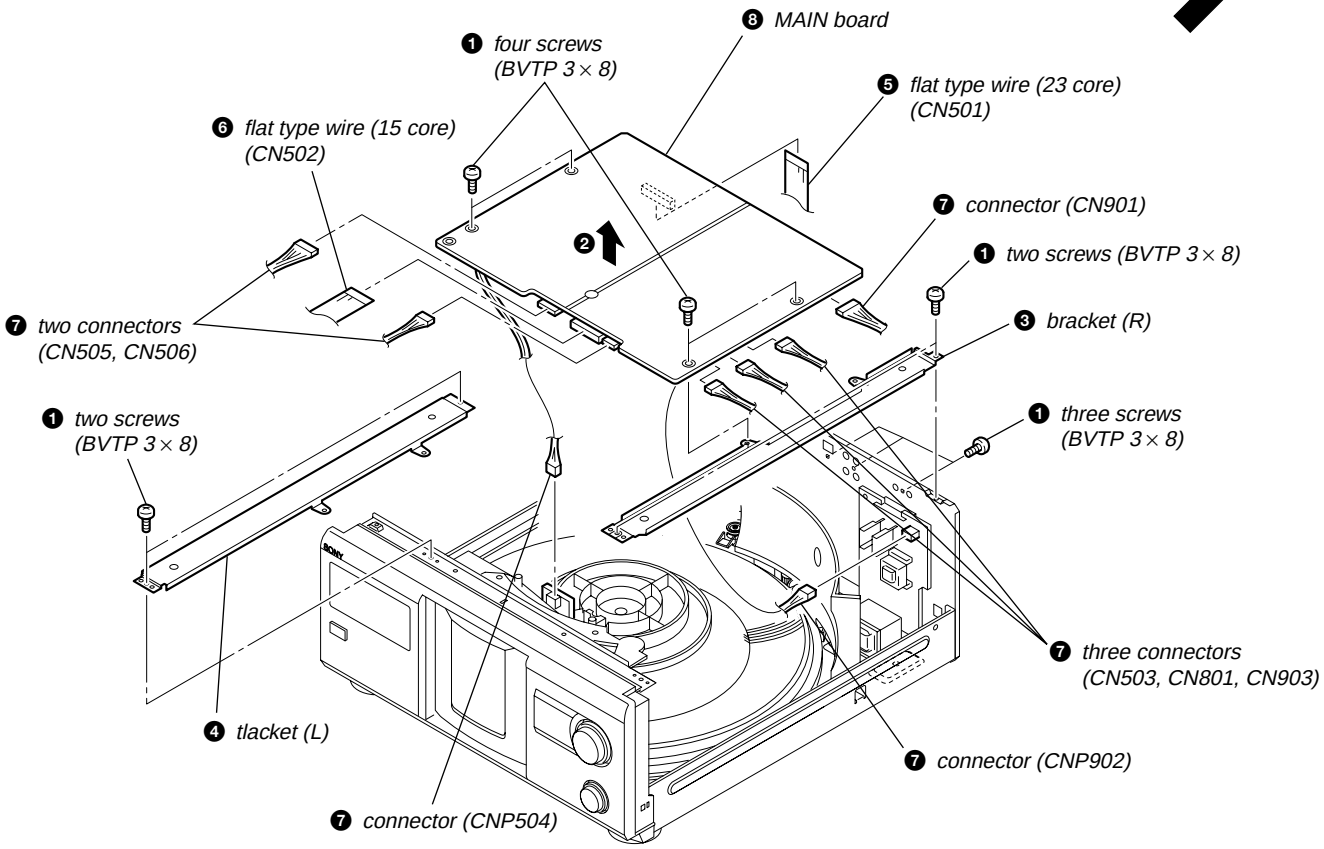
SECTION 3
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

COVER (ES) ASS'Y



MAIN BOARD



FRONT PANEL ASS'Y

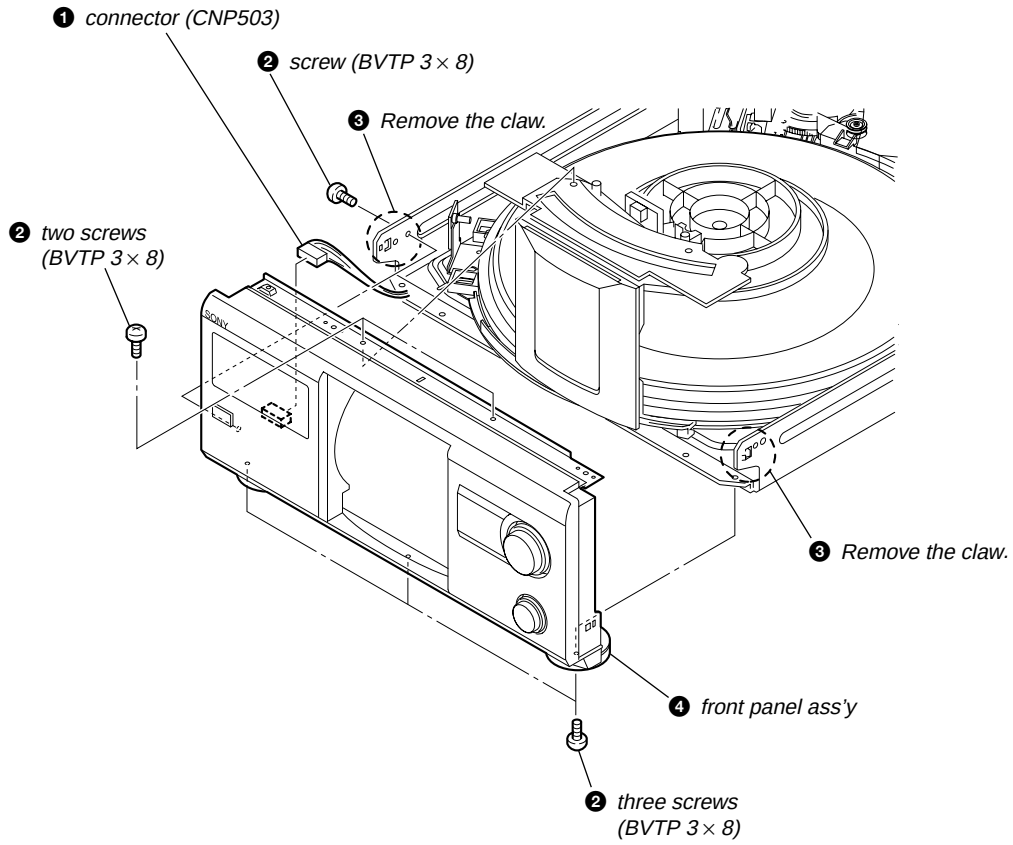
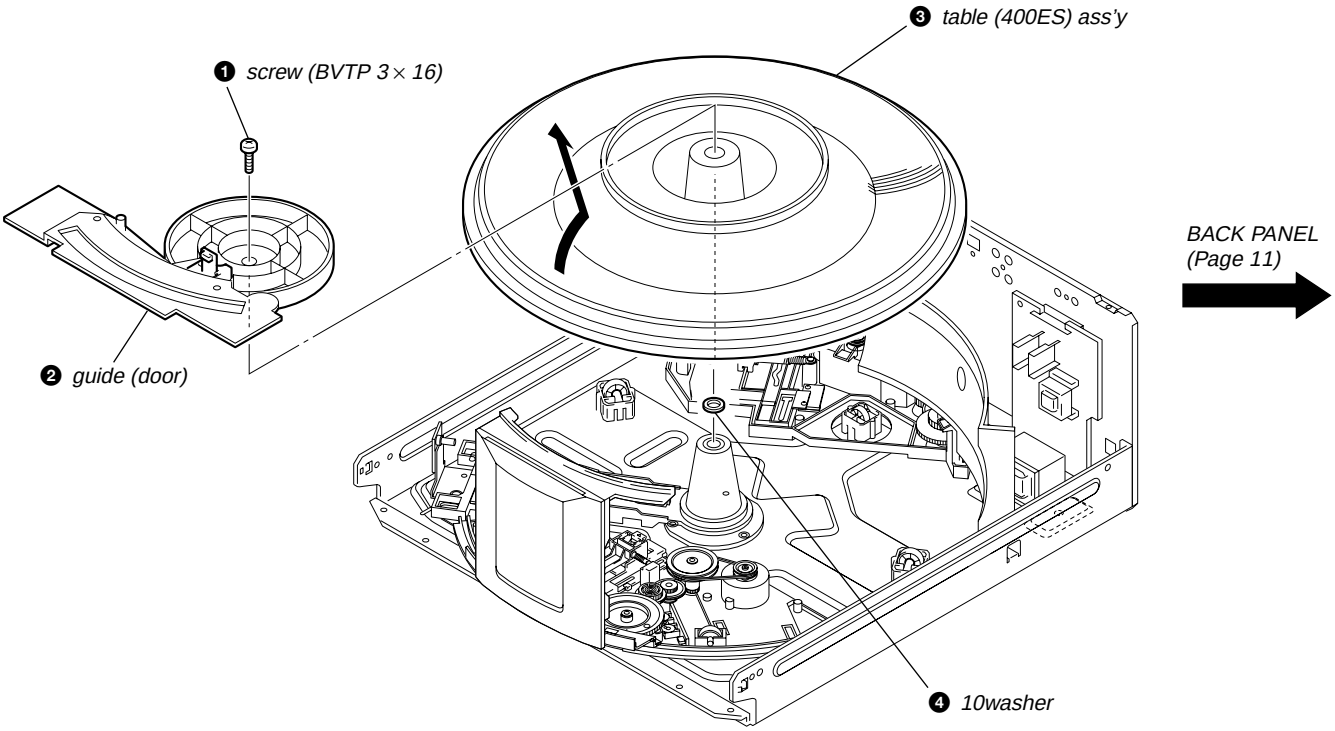
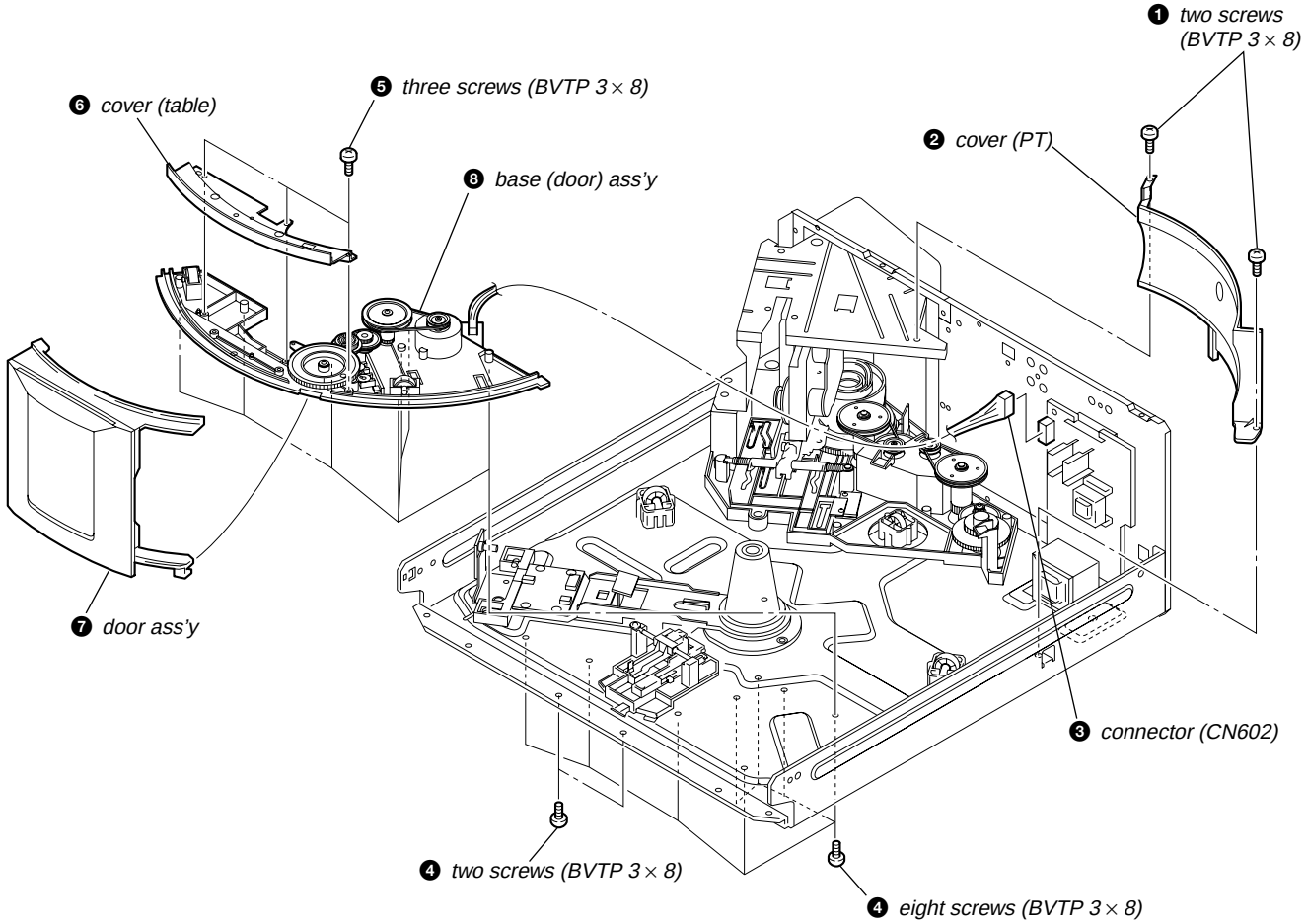

❶ connector (CNP503)
❷ screw (BVTP 3 × 8)
❸ Remove the claw.
❷ two screws (BVTP 3 × 8)
❸ Remove the claw.
❹ front panel ass'y
❷ three screws (BVTP 3 × 8)

TABLE (400ES) ASS'Y

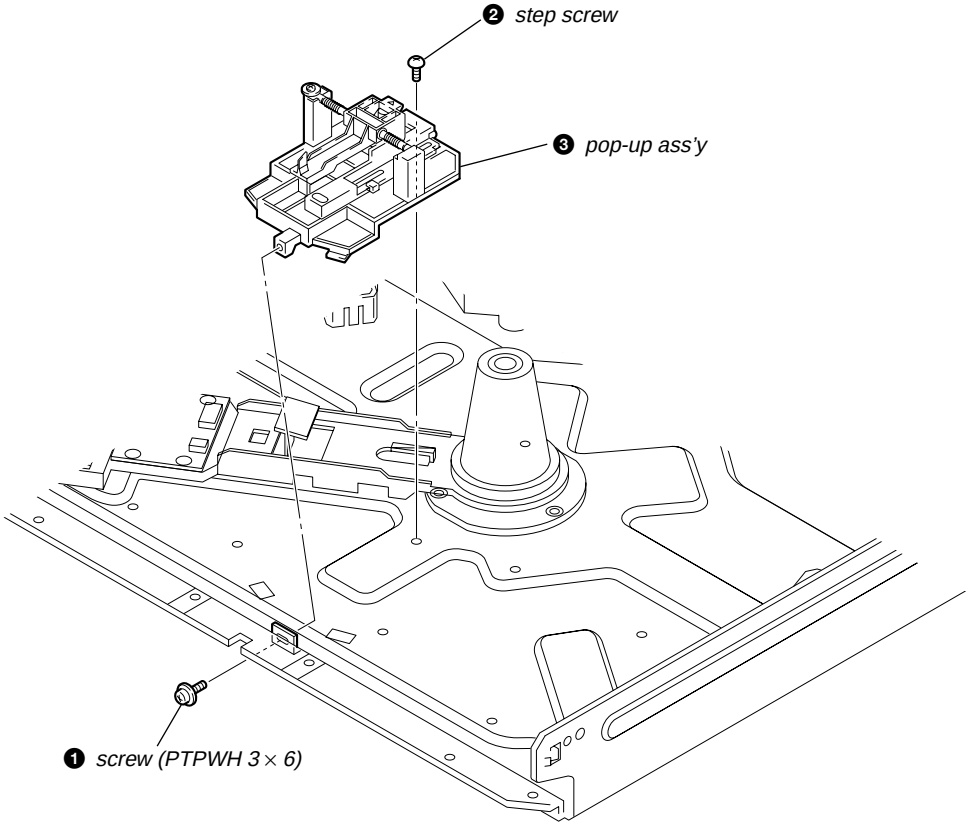


BACK PANEL (Page 11)

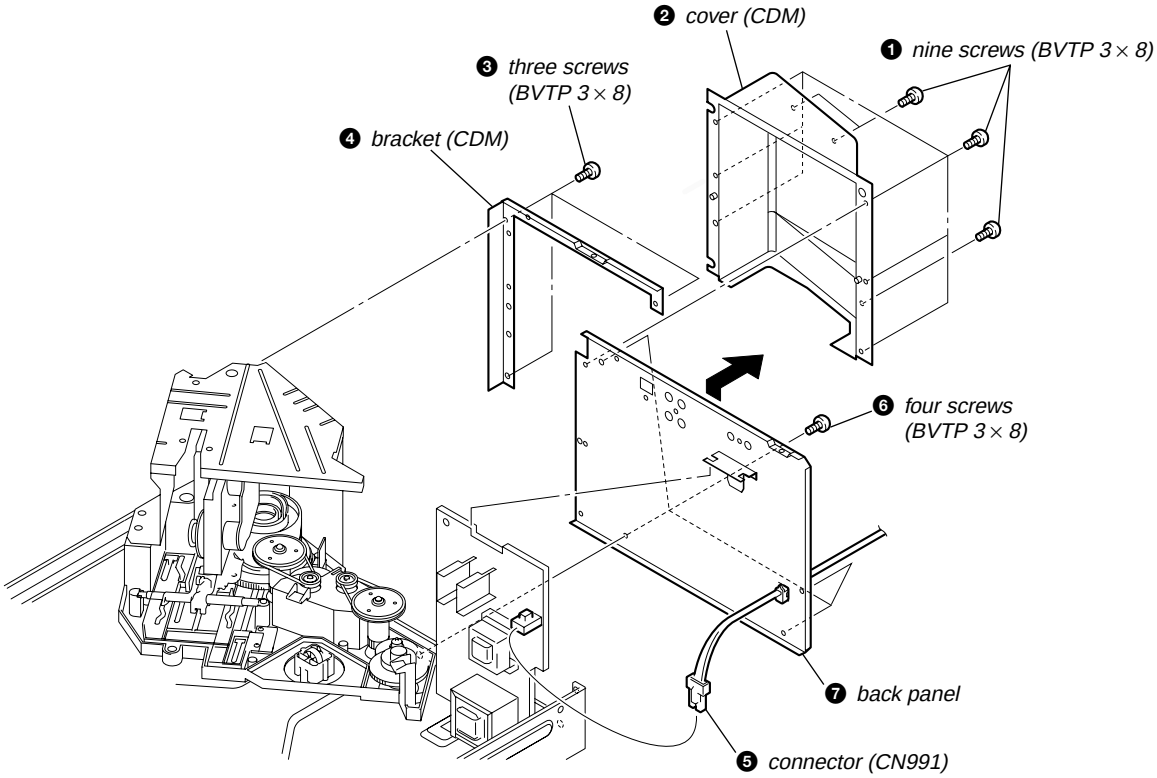
BASE (DOOR) ASS'Y


❶ two screws (BVTP 3 × 8)
❷ cover (PT)
❸ connector (CN602)
❹ two screws (BVTP 3 × 8)
❹ eight screws (BVTP 3 × 8)
❺ three screws (BVTP 3 × 8)
❻ cover (table)
❼ door ass'y
❽ base (door) ass'y

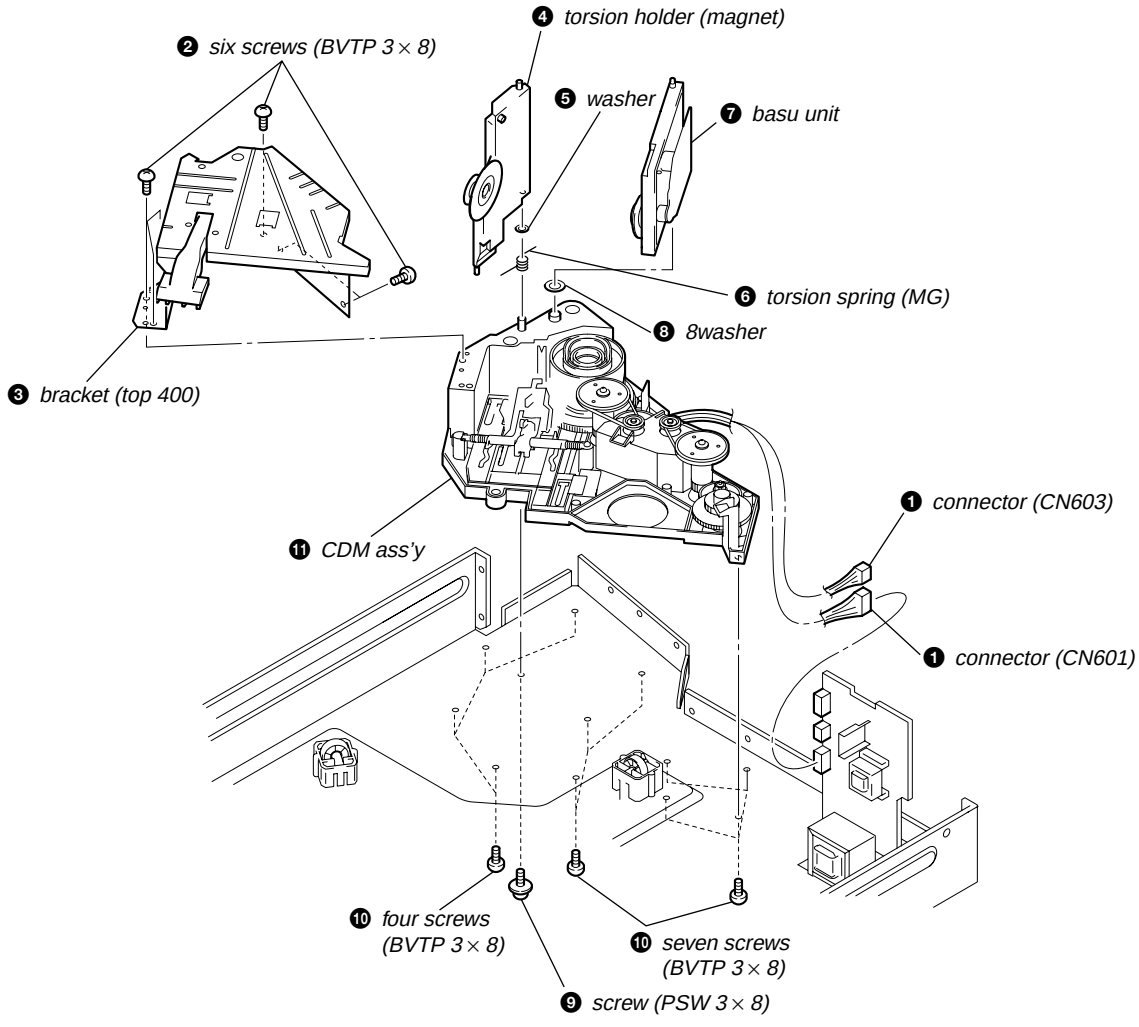
POP-UP ASS'Y



BACK PANEL



CDM ASS'Y


❹ torsion holder (magnet)
❷ six screws (BVTP 3 × 8)
❺ washer
❼ basu unit
❻ torsion spring (MG)
❽ 8washer
❸ bracket (top 400)
❶ connector (CN603)
⓫ CDM ass'y
❶ connector (CN601)
❿ four screws (BVTP 3 × 8)
❿ seven screws (BVTP 3 × 8)
❾ screw (PSW 3 × 8)

SECTION 4
SERVICE MODE

SPECIAL FUNCTION

This unit is provided with several service modes.
Details are shown in the following table.

Turn on the power and press GROUP FILE, MEGA CTRL and I/⏻ buttons.
Rotate the DISC/CHARACTER knob to enter any of the following modes.

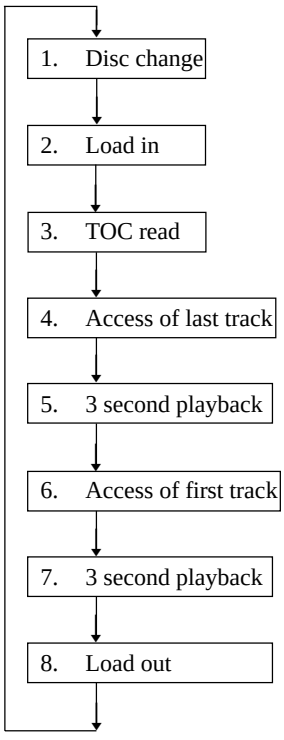
Display	Contents
Mech Adjust	Mechanism adjustment mode
Table Roatation	Mode in which table keeps rotating
All Lit Mode	All lights ON mode
Ship Mode	Default mode
Normal Aging	Normal aging mode
Table Aging	Table aging mode
Door Popup Aging	Door/popup aging mode
Color Bar (OSD)	Color bar on OSD
Test Disp (OSD)	Test display for OSD
Memo Copy Mode	Memo copy mode
Model Name	Model name display
Show Mcom Ver.	Software version display
Demo	400-memo writing mode
BUS Check	Bus check
M kentou	Loading aging

To exit the mode, press I/⏻ button to enter the standby state.
(When selecting the Ship mode, the standby mode is automatically entered.)

AGING MODE

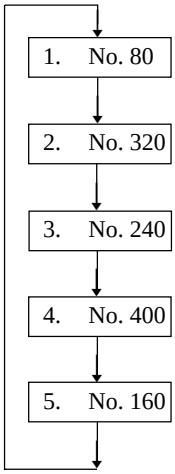
- Mode which repeatedly changes and plays back discs automatically in the unit.
- It will repeat aging as long as no errors occur.
- If an error occurs during aging, it will stop all servos, motors, etc. instantaneously, display the error number, and stop operations. However, the stopping conditions differ according to whether the unit is equipped with the “self-protection function during errors” described later.
  The function serves to maintain the state of the unit when errors occur.

Sequence of Aging Mode



Order of Disc Change

(1 cycle takes 3 minutes)



SPECIAL AGING MODE FUNCTIONS

The aging mode is provided with the following convenient functions

- Disc setting mode (*1)
- Selection of presence of protection function during error (*2)
- Count function of aging cycle (*3)

*1 Disc setting mode:
5 discs are set before setting the aging mode. This mode makes the setting of these discs more easy.

*2 Self protection function during errors:
Function which voluntarily corrects errors which occur during normal operations by retries.
If this function is not provided, all operations will be stopped without retiring. It is suitable for checking errors with low reproducibility.
If this function is provided, and errors can be corrected by retries, aging will be continued without stopping.

*3 Aging cycle count function:
Functions which displays the number of agings carried out on the Fluorescent indicator tube in numbers. One aging cycle consists of five discs.

AGING PROCEDURE

1. Turn on the power and press the GROUP FILE, MEGA CTRL and I/⏻ buttons.
2. Rotate DISC/CHARACTER knob, select “Normal Aging” and press the button to start the aging mode.
3. When the disc set mode is set, the ▷ and ❚❚ LEDs blink.
4. Rotate the DISC/CHARACTER knob. The slits (No. 80, 160, 400, 240, 320) for setting the discs will come forward. Insert the discs into these slits. Do not set the discs in other slits.
5. Set whether the self-protection function during errors is equipped with the unit. Press the REPEAT button. If “REPEAT” is displayed on the fluorescent indicator tube, it means the function is provided. If “REPEAT” is not displayed, it means the function is not provided.
6. Press the ▷ button.
7. The ▷ LED blinks, the aging mode is set, and aging is started.
8. The aging cycle lasts 3 minutes. If errors occur during aging, the error number will be displayed on the fluorescent indicator tube. (Refer to the following table for the details of the errors.)
9. Aging will be repeated as long as no errors occur.
10. After each aging cycle, the number displayed on the Fluorescent indicator tube will increase.
11. To end aging, to end aging, press the I/⏻ button to enter the standby mode.

Error code

Code number	Name	Contents
#Err 01	DISC sensor check 1	No disc in the specified slit
#Err 02	DISC sensor check 2	Disc in other slits
#Err 03	Table operation check 1	Table motor current over
#Err 04	Table operation check 2	No table sensor input
#Err 05	Loading operation check 1	Load in timeover
#Err 06	Loading operation check 2	Load out timeover
#Err 08	Table stop precision check 1	Table is not stopped within the specified time.
#Err 09	Table stop precision check 2	Stopped while both T.SENS 1 and 2 are “LOW”.
#Err *1	BU related check 1	Access timeover
#Err *2	BU related check 2	During high speed playback, COUNT timeout
#Err *3	BU related check 3	Q data read error
#Err *4	BU related check 4	]BU operation (from focus search to until signal can be read) timeover
#Err *5	BU related check 5	GFS monitor error
#Err *6	BU related check 6	Focus cannot be imposed by focus search

The * numbers mean the following according to the state of the unit during aging

2 : From chucking to end of TOC read
3 : From end of TOC read to end of last track playback
4 : From end of last track playback to end of first track playback
: DISC No.

LOADING AGING MODE

- This mode is used for repeating loading operations continuously.
- Aging will be performed continuously unless an error occurs.
- When an error occurs, the error code will be displayed on the fluorescent indicator tube.

Procedure:

1. Set a disc in the DISC 1 slit.
2. Turn on the power and press the GROUP FILE, MEGA CTRL and I/⏻ buttons.
   Rotate the DISC/CHARACTER knob, select "Table Roatation" and press the dial.
3. When the mode is set, both the ▷ and ❚❚ indicators will start to blink.
4. When the ▷ button is pressed, only the ▷ indicator will blink and aging starts.
5. To end the mode, press the I/⏻ button or disconnect the power cord from the outlet.

The error codes displayed during operations and when errors occur are the same as the **"AGING MODE"** described earlier.

TABLE AGING MODE

- This mode is used for rotating the table randomly.
- Aging will be performed continuously unless an error occurs.
- When an error occurs, the error code will be displayed on the fluorescent indicator tube.

Procedure:

1. Turn on the power and press the GROUP FILE, MEGA CTRL and I/⏻ buttons.
   Rotate the DISC/CHARACTER knob, select "Table Aging" and press the dial.
   Rotate the DISC/CHARACTER knob and set the disk in the slit whose number is being displayed (150, 149, 300, 1, 2)
2. When the mode is set, both the ▷ and ❚❚ indicators will start to blink.
3. When the ▷ button is pressed, only the ▷ indicator will blink and aging starts.
4. To end the mode, press the I/⏻ button or disconnect the power cord from the outlet.

During aging, operations will be carried out sequentially in the order of No. 1, No. 2, No. 150, No. 149, and No. 300 slits.

The error codes displayed during operations and when errors occur are the same as the **"AGING MODE"** described earlier.

DOOR POP UP AGING MODE

- This mode is used for performing aging of the CD pop up part and door open/close.
  It is used for checking if operations are performed normally.

Method:

1. Turn on the power and press the GROUP FILE, MEGA CTRL and I/⏻ buttons.
   Rotate the DISC/CHARACTER knob, select "Door Popup Aging" and press the dial.
2. Aging starts, and door open/close and up/down operations of the pop up part are performed continuously.
3. To end the mode, press the I/⏻ button.

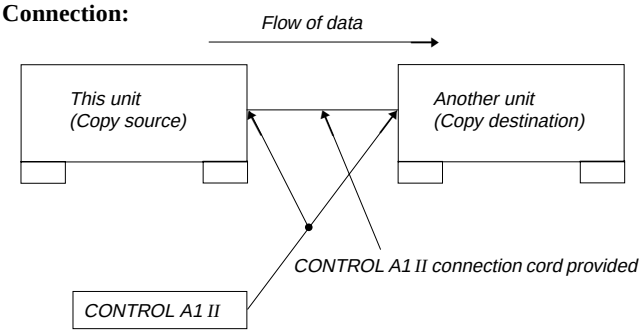
TABLE ROTATION MODE

- This mode is used for electrical adjustments. Refer to the section on Electrical Adjustments.

TITLE MEMO SHIFT MODE

- This mode is used for writing title memo information recorded in this unit in a different unit.
  Use it for transferring disc memo contents written by the customer to the new units when replacing the unit, etc.

Connection:



Procedure:

1. Connect two units using the CONTROL A1 II connection cord shown in the figure.
2. With the power on, while pressing the GROUP 7 button and OPEN/CLOSE button of the copy destination unit, press the +100 button.
3. When the data has been transferred, the fluorescent indicator tube displays "complete" for about 1 second.

MODEL NAME DISPLAY

- Model names can be displayed on the fluorescent indicator tube for checking the microprocessor model setting, etc.

Procedure:

With the power ON, while pressing the GROUP FILE and MEGA CTRL buttons, press the I/⏻ button.
Rotate the DISC/CHARACTER knob, select "Model Name" and press the dial.
The model name is displayed on the fluorescent indicator tube.
Let the model name be displayed for three seconds and exit the mode.

MICROPROCESSOR VERSION DISPLAY

- The microprocessor version can be displayed on the fluorescent indicator tube.

Procedure:

With the power ON, while pressing the GROUP FILE and MEGA CTRL buttons, press the I/⏻ button.
Rotate the DISC/CHARACTER knob, select "Show Mcom Ver." and press the dial.
The microprocessor version is displayed on the fluorescent indicator tube.
Let the model name be displayed for three seconds and exit the mode.

ALL LIT MODE

- This mode is used for lighting the whole fluorescent indicator tubes and LEDs.

Procedure:

With the power ON, while pressing the GROUP FILE and MEGA CTRL buttons, press the I/⏻ button.
Rotate the DISC/CHARACTER knob, select “All Lit Mode” and press the dial.
Both the fluorescent indicator tubes and LEDs will light up completely.
To end this mode, press the I/⏻ mode.

MECHANISM ADJUSTMENT MODE

- This mode is used for mechanism adjustments. Refer to the section on Mechanism Adjustments.

SHIPMENT MODE

- This mode is used for setting the unit to the shipment state. Do not execute it without a proper reason as it erases the memory of the title memo recorded by the customer.

Procedure:

Set the TIMER switch to OFF. Next, with the power ON, while pressing the GROUP FILE button and MEGA CTRL button, press the I/⏻ button. If the switch state is normal, the model name will be displayed on the fluorescent indicator tube and the unit will set into the shipment mode.
If the various switches are not set to their designated positions, error will be displayed on the fluorescent indicator tube.

TITLE MEMO RECORDING CHECK MODE

This mode is not required for servicing. Do not execute without a proper reason.
If executed, the memory of the title memo recorded by the customer will be erased.

SECTION 5
TEST MODE

ADJ MODE

1. Turn ON the power of the unit, set disc to disc table, and perform chucking.
2. Remove the power cord from the outlet.
3. To set ADJ mode, connect the TP4 (ADJ) of the MAIN board to ground, and connect the power cord to the outlet.

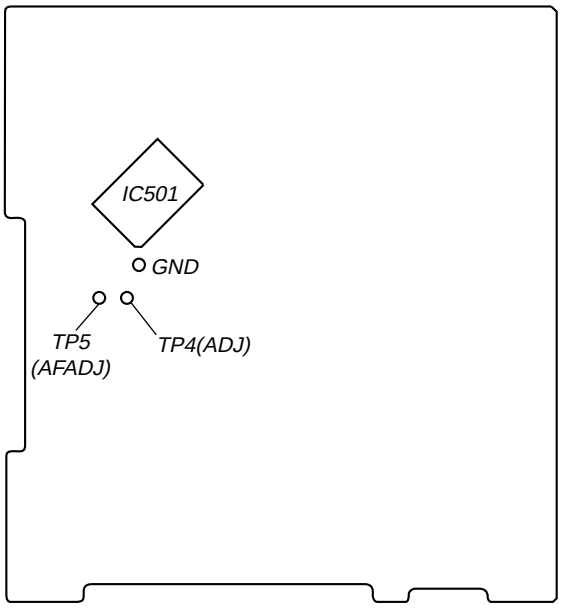
In this mode, table rotation and loading operations are not performed because it is taken that the disc has already been chucked.

Note: The same operations are also performed in the following when the TP4 (ADJ) is connected to ground after turning on the power.
- Direct search (movement of sledding motor) is not performed during accessing
- Ignored even when GFS becomes L
- Ignored even when the Q data cannot be read
- Focus gain does not decrease

ADJ Mode Special Functions Table

Button	Function
CONTINUE	Servo average display Displays VC, FE, RF, TE and traverse in hexadecimal numbers
SHUFFLE	Focus bias display Each time this is pressed, the focus bias is switched between 1 and 2 (1) Bias actually set Optimum bias Minimum jitter (2) U:Upper aliasing bias L:Lower aliasing bias
PROGRAM	Auto gain display Displays focus, tracking, sledding in hexadecimal numbers
GROUP 3 (3)	Turns off the tracking and sledding servo
GROUP 8 (8)	Turns on the tracking and sledding servo
CHECK	S-curve observation mode. (Release this mode when the I/⏻ button is pressed.)

• Checking Location
– MAIN BOARD (Conductor Side) –



KEY AND DISPLAY CHECK MODE

To set this mode, connect the TP5 (AFADJ) on the MAIN board to ground, and connect the power cord to the outlet.

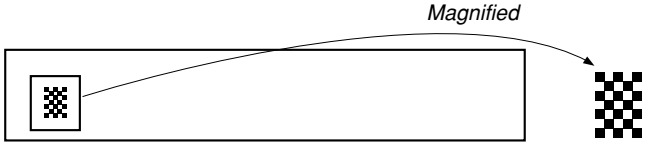
Note: When this mode is executed, all title memos recorded will be erased.
- When this button is pressed, "line # No. #" will be displayed. However, these will not be displayed for the following special buttons. However, these will not be displayed for the following special buttons.

■ (stop) button : FL segment check
(Refer to FL Tube Check Patterns)
❚❚ (pause) button : FL grid check
(Refer to FL Tube Check Patterns)
The ❚❚ LED also lights up simultaneously.
▷ (play) button : All FL segment and grid will light up.
▷ LED also lights up simultaneously.
TIMER switch : When the switch position is PLAY, the STANDBY LED lights up. It goes OFF when set to OFF.

Each time this button is pressed, the value of the "Go+ ## keys" increases. Buttons pressed once will not be counted when pressed again.

FL Tube Check Patterns

Segment check



Grid check

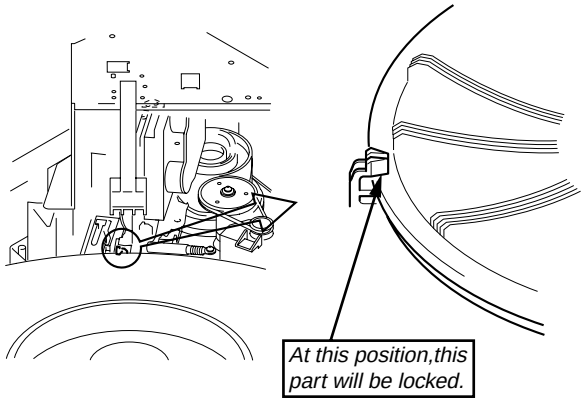
- When the jog dial is rotated to the right, the GROUP LEDs light up in the order of 1→2..8→HIT LIST→EASY PLAY→ARTIST MODE→MEGA CTRL→1.
- When the jog dial is rotated to the left, the GROUP LEDs light up in the order of 8→7..1→MEGA CTRL→ARTIST MODE→EASY PLAY→HIT LIST→8.

• Abbreviation
FL: Fluorescent Indicator Tube

SECTION 6
MECHANICAL ADJUSTMENTS

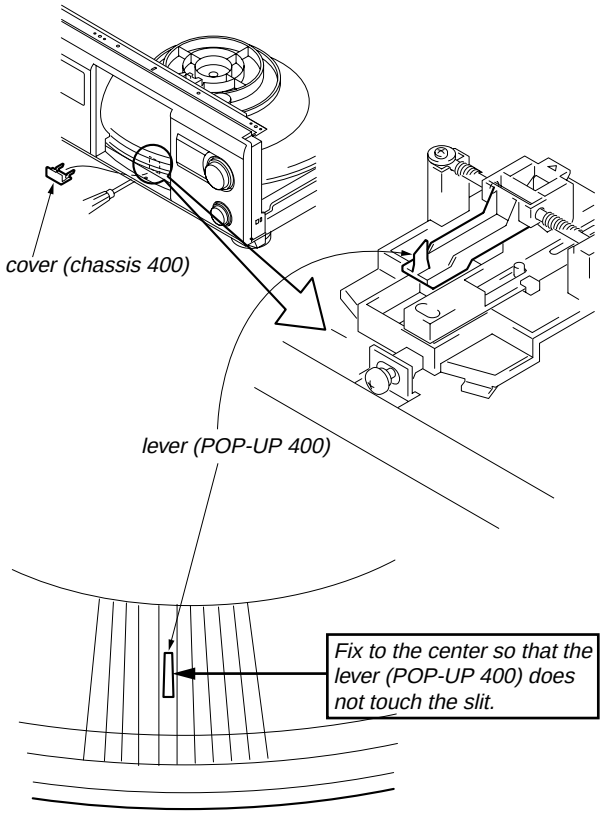
Pop Up Mechanism Adjustment

1. Turn on the power and set the dick to number 24.
2. With the power ON, while pressing the GROUP FILE and MEGA CTRL buttons, press the I/⏻ button to enter the Adjastment mode.
3. Rotate the JOG dial and select the mechanism adjustment mode. (“Mech Adjust” is displayed.)
   Press the JOG dial.
4. Keep pressing the GROUP 1 button to operate the loading mechanism, and continue pressing until the disc table locks. (Fig-1)
5. Keep pressing the GROUP 2 button to raise the pop up part.
6. Loosen the adjusting screw, move the screwdriver left and right until the lever (POP UP) does not touch the slit wall, and secure the screw. (Fig-2)



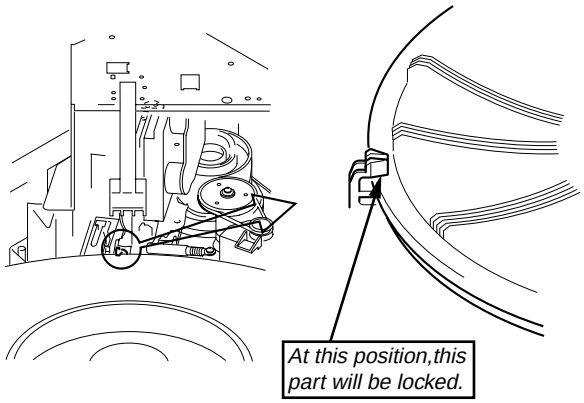
The following buttons have special functions in this mode.

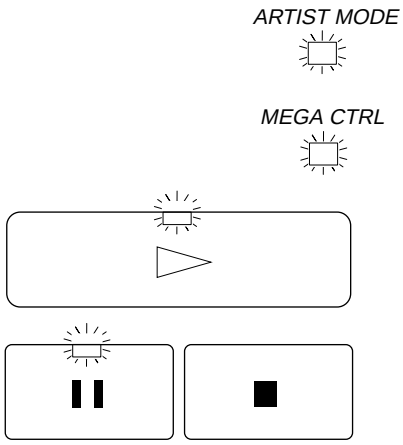
GROUP 1 button: Loading mechanism IN operation
GROUP 5 button: Loading mechanism OUT operation
GROUP 2 button: Pop up part UP operation
GROUP 6 button: Pop up part DOWN operation

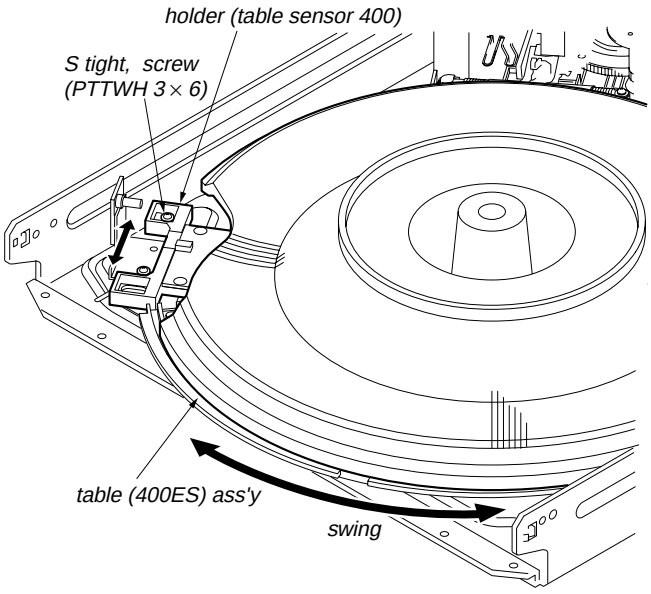


Sensor Adjustment

1. Enter the adjustment mode and select “Mech Adjust” with the DISC/CHARACTER knob rotate, and press the knob.
2. Press the GROUP 1 button to operate the loading mechanism, and continue pressing until the disc table locks. (Fig-3)
3. Loosen the fixing screw and move the holder so that both ▷ button LED (green) and the ARTIST MODE button LED (green) light.
   If the holder is not in the correct position, the MEGA CTRL button LED (orange) or the ❚❚ button LED (orange) lights.
4. Moving the disc table right and left with a hand after the screw is fixed, the table will move by the play of a disc table. If the LEDs light up alternately, the adjustment will be performed correctly. (Fig-4)



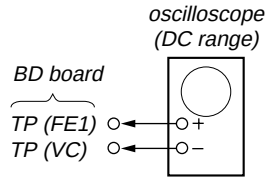




SECTION 7
ELECTRICAL ADJUSTMENT

1. CD Block is basically designed to operate without adjustment. Therefore, check each item in order given.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10 MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.

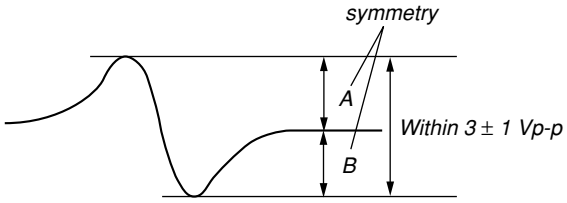
S-CURVE CHECK



Procedure :

1. Chuck the disc (YEDS-18) beforehand, and remove the power cord from the outlet.
2. Connect oscilloscope to test point TP (FE1) on BD board.
3. Connect TP4 (ADJ) on MAIN board to ground with lead wire.
4. The ADJ mode is set when the power cord is inserted into the outlet and power is supplied.
5. The fifth track is played automatically.
6. Press the CHECK button.
7. Check the oscilloscope waveform (S-curve) is symmetrical between A and B. And confirm peak to peak level within 3±1 Vp-p.

S-curve waveform

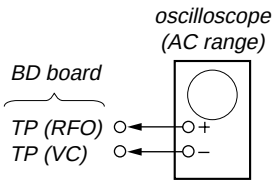


8. Pressing the I/⏻ button stops the output of the waveform (s-curve).
9. After check, disconnect the lead wire connected in step 3.

Note :
- Try to measure several times to make sure than the ratio of A : B or B : A is more than 10 : 7.
- Take sweep time as long as possible and light up the brightness to obtain best waveform.

Adjustment Location: BD board

RF LEVEL CHECK

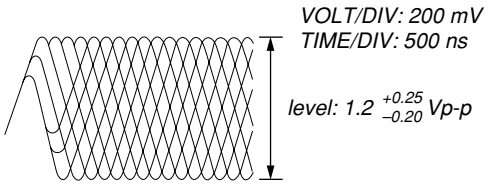


Procedure :

1. Connect oscilloscope to test point TP (RFO) on BD board.
2. Turn Power ON.
3. Put disc (YEDS-18) in to play the number five track.
4. Confirm that oscilloscope waveform is clear and check RF signal level is correct or not.

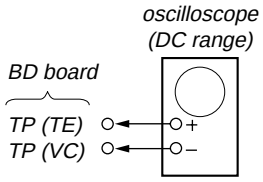
Note: A clear RF signal waveform means that the shape "◇" can be clearly distinguished at the center of the waveform.

RF signal waveform



Adjustment Location: BD board

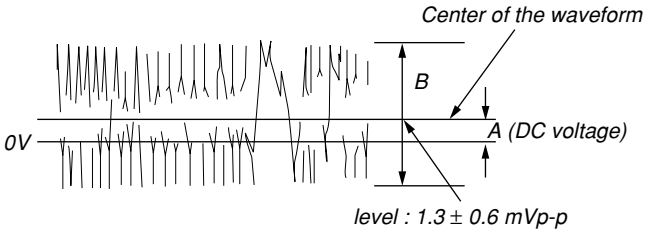
E-F BALANCE CHECK



Procedure :

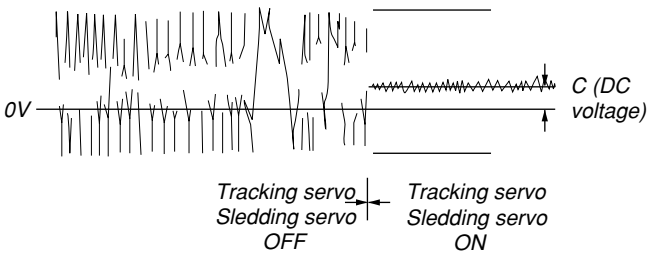
1. Chuck the disc (YEDS-18) beforehand, and disconnect the power cord from the outlet.
2. Connect oscilloscpe to test point TP (TE) on BD board.
3. Connect TP4 (ADJ) on MAIN board to ground with lead wire.
4. The ADJ mode is set when the power cord is inserted into the outlet and power is supplied.
5. The fifth track is played automatically.
6. Press the GROUP 3 button. (The tracking servo and the sledding servo are turned OFF.)
7. Check the level B of the oscilliscopes waveform and the A (DC voltage) of the center of the Traverse waveform.
   Confirm the following :
   A/B x 100 = less than ± 22%

Traverse waveform



8. Press the GROUP 8 button. (The tracking servo and sledding servo are turned ON.) Confirm the C (DC voltage) is almost equal to the A (DC voltage) is step 7.

Traverse waveform



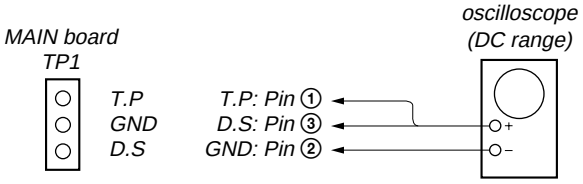
9. Disconnect the lead wire connected in step 3.

Adjustment Location: MAIN board

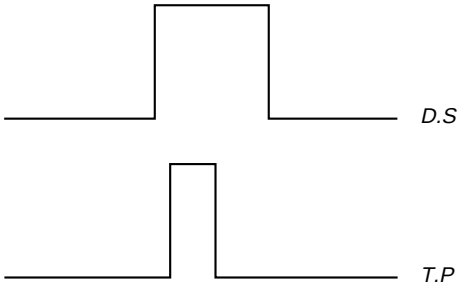
DISC IN DETECT SENSOR ADJUSTMENT

Be sure to perform this adjustment after sensor adjustment in MECHANICAL ADJUSTMENT.

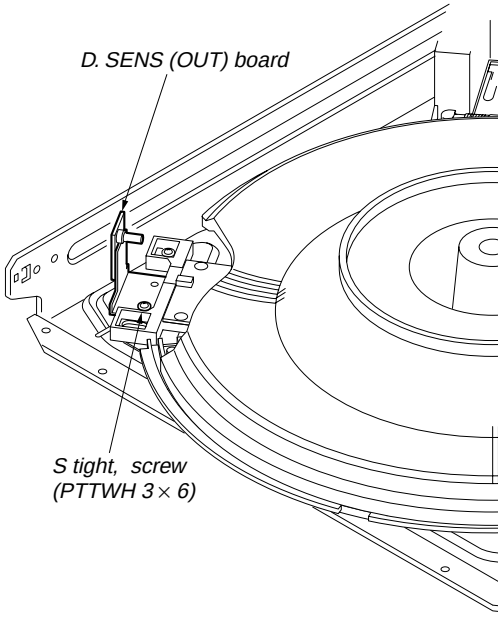
Connection:

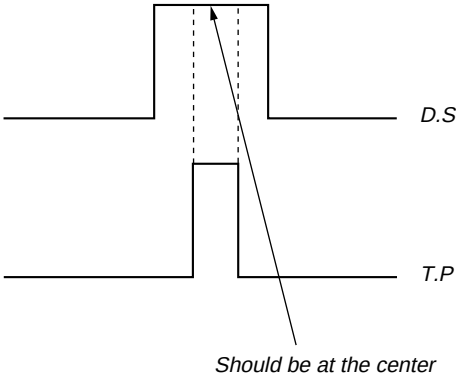


Waveform:

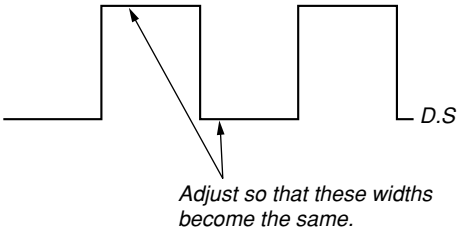


1. Connect the oscilloscope to Pins ①, ②, and ③ of TP1 of the MAIN board.
2. Check that no discs are loaded in the unit.
3. With the power ON, while pressing the GROUP FILE and MEGA CTRL buttons, press the I/⏻ button. Rotate the DISC/CHARCTER knob, select "Table Rotation" and press the knob. The disc table starts to rotate in the clockwise direction.
4. Loosen the fixing screw, move the mounting board (SENSOR), and secure the mounting board (SENSOR) at the point the H portion of the P.T waveform comes the center of the H portion of the D.S waveform.





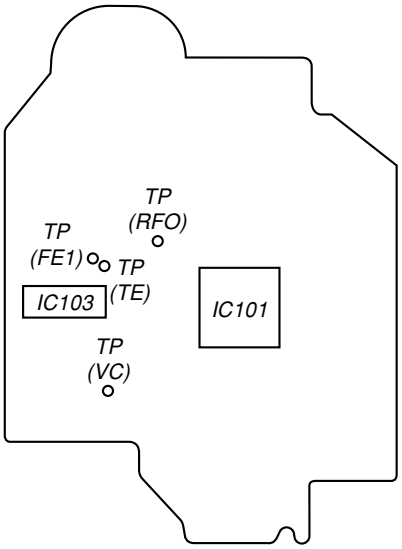
5. Rotate the DISC/CHARACTER knob in the counterclockwise direction and the disc table starts to rotate in the same direction. Check that the waveform at this time is the same as that in step 4. If larger by a considerable extent, rotate the DISC/CHARACTER knob in the clockwise direction and the disc table starts to rotate in the same direction. Repeat from step 4.
6. Rotate RV501 of the MAIN board and adjust so that the H and L portions of the D.S waveform become the same.



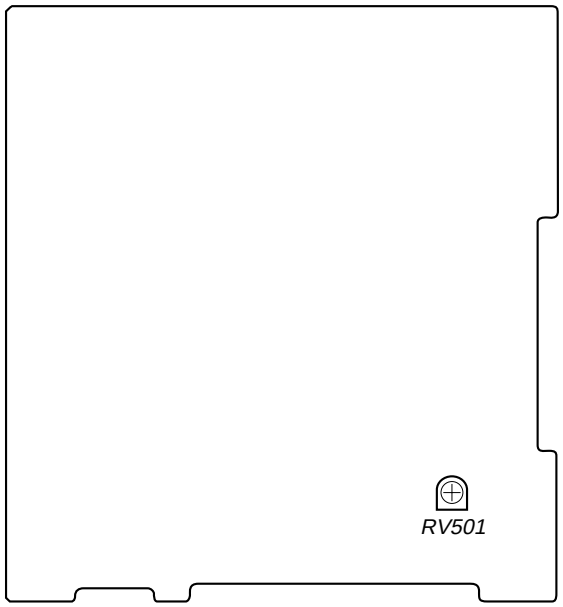
Adjustment Location: MAIN board

• **Adjustment Location**

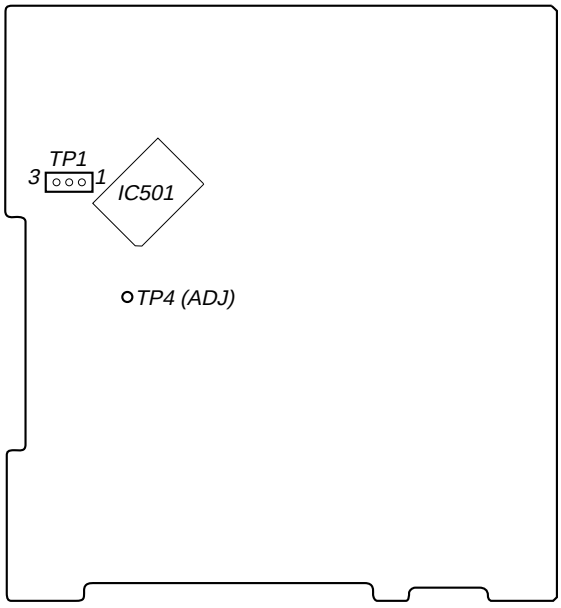
– BD BOARD (Conductor Side) –



– MAIN BOARD (Component Side) –



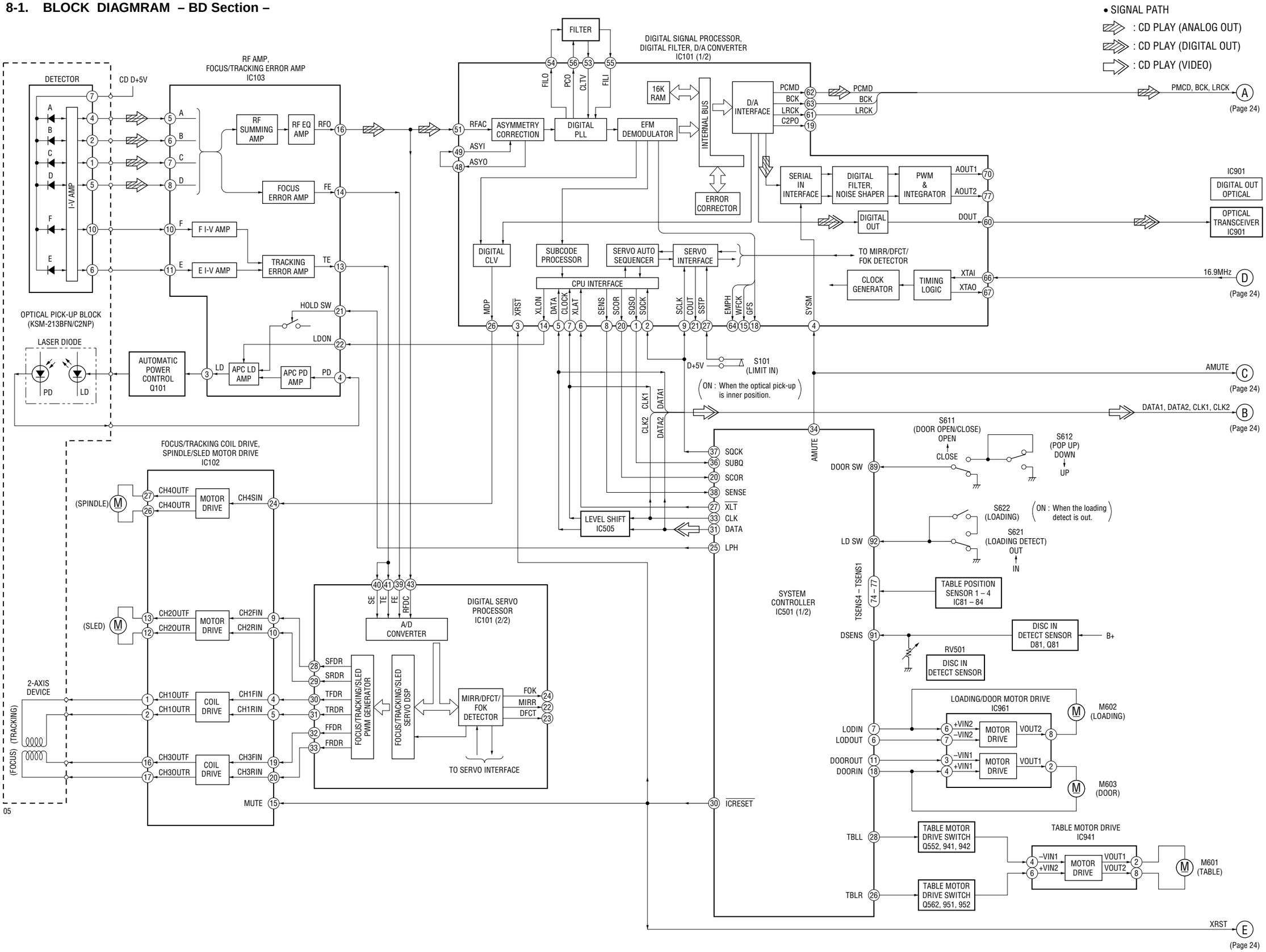
– MAIN BOARD (Conductor Side) –



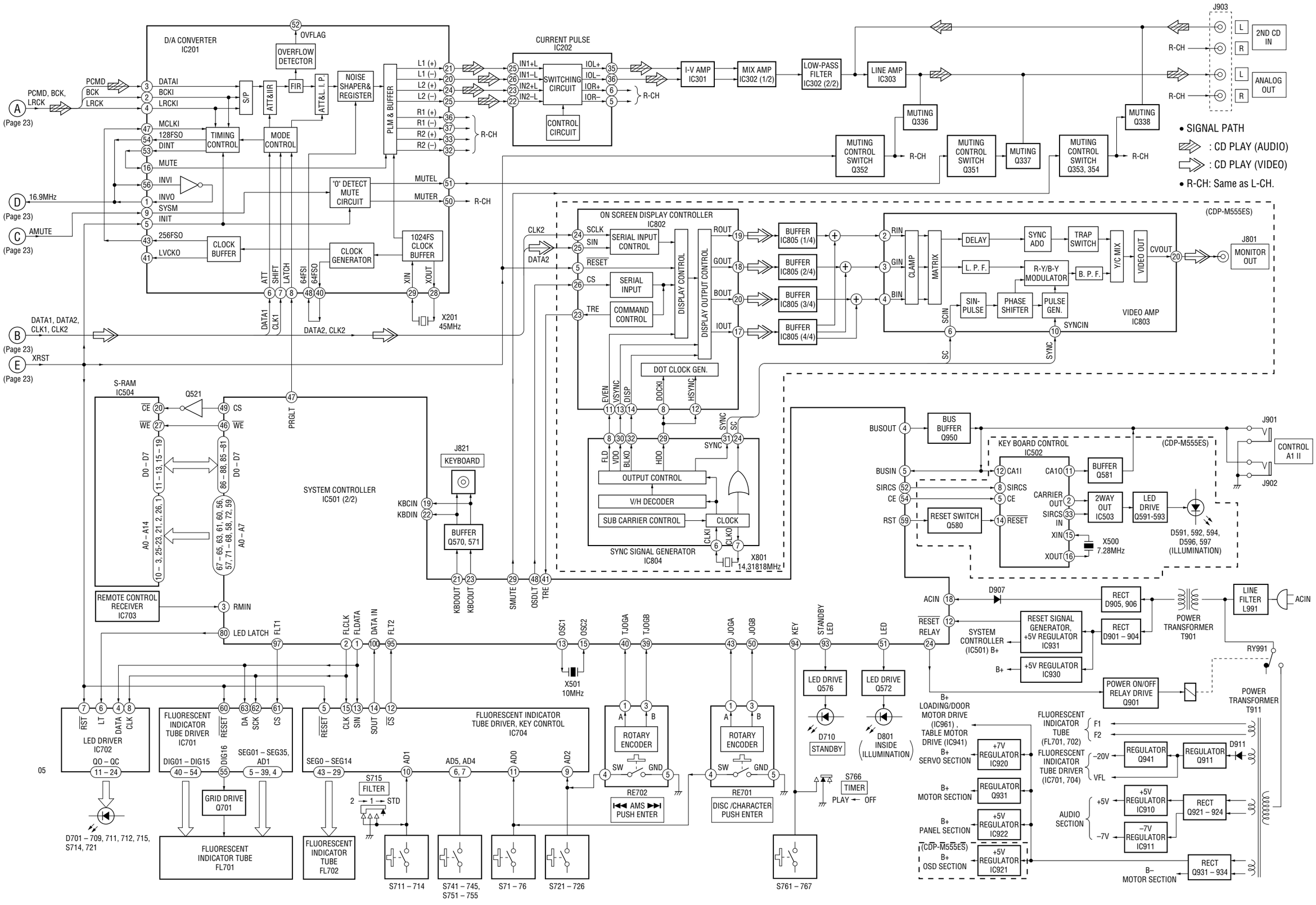
MEMO

SECTION 8
DIAGRAMS

8-1. BLOCK DIAGMRAM – BD Section –



8-2. BLOCK DIAGRAM – MAIN Section –



8-3. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

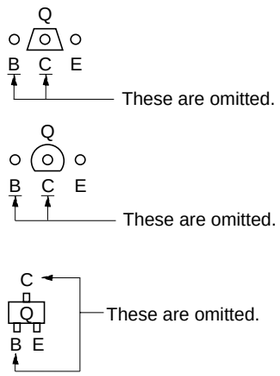
Note on Printed Wiring Board:

- ○——— : parts extracted from the component side.
- ——— : parts extracted from the conductor side.
- ▒▒▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

Caution:	
Pattern face side: (Conductor Side)	Parts on the pattern face side seen from the pattern face are indicated.
Parts face side: (Component Side)	Parts on the parts face side seen from the parts face are indicated.

- Indication of transistor.



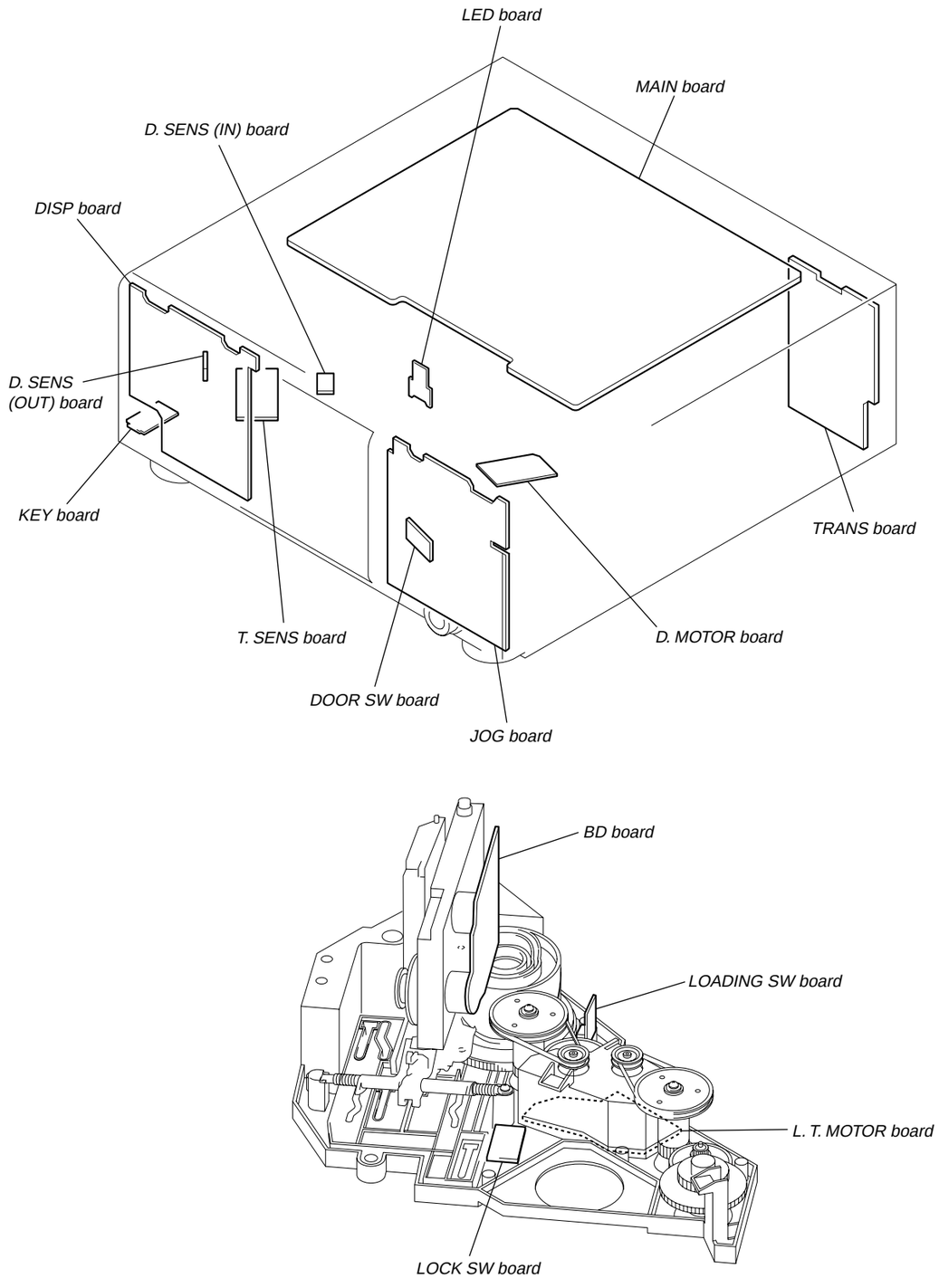
Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- ▭ : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

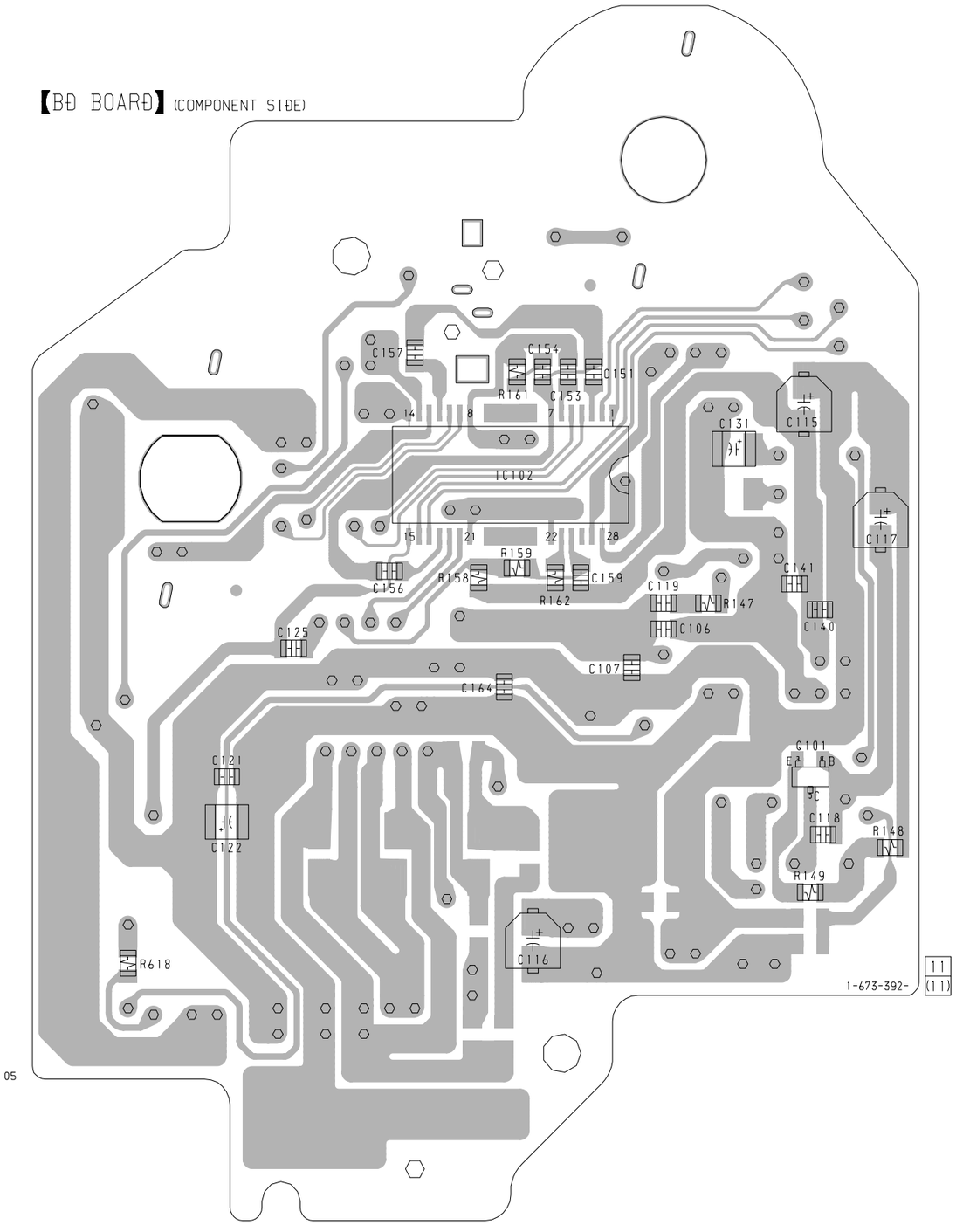
- B+ : B+ Line.
- B− : B– Line.
- ▬ : adjustment for repair.
- Voltages and waveforms are dc with respect to ground under no-signal conditions. no mark : CD PLAY
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  - ⇨ : CD PLAY (ANALOG OUT)
  - ⇨ : CD PLAY (DIGITAL OUT)
  - ⇨ : CD PLAY (VIDEO)

• Circuit Boards Location

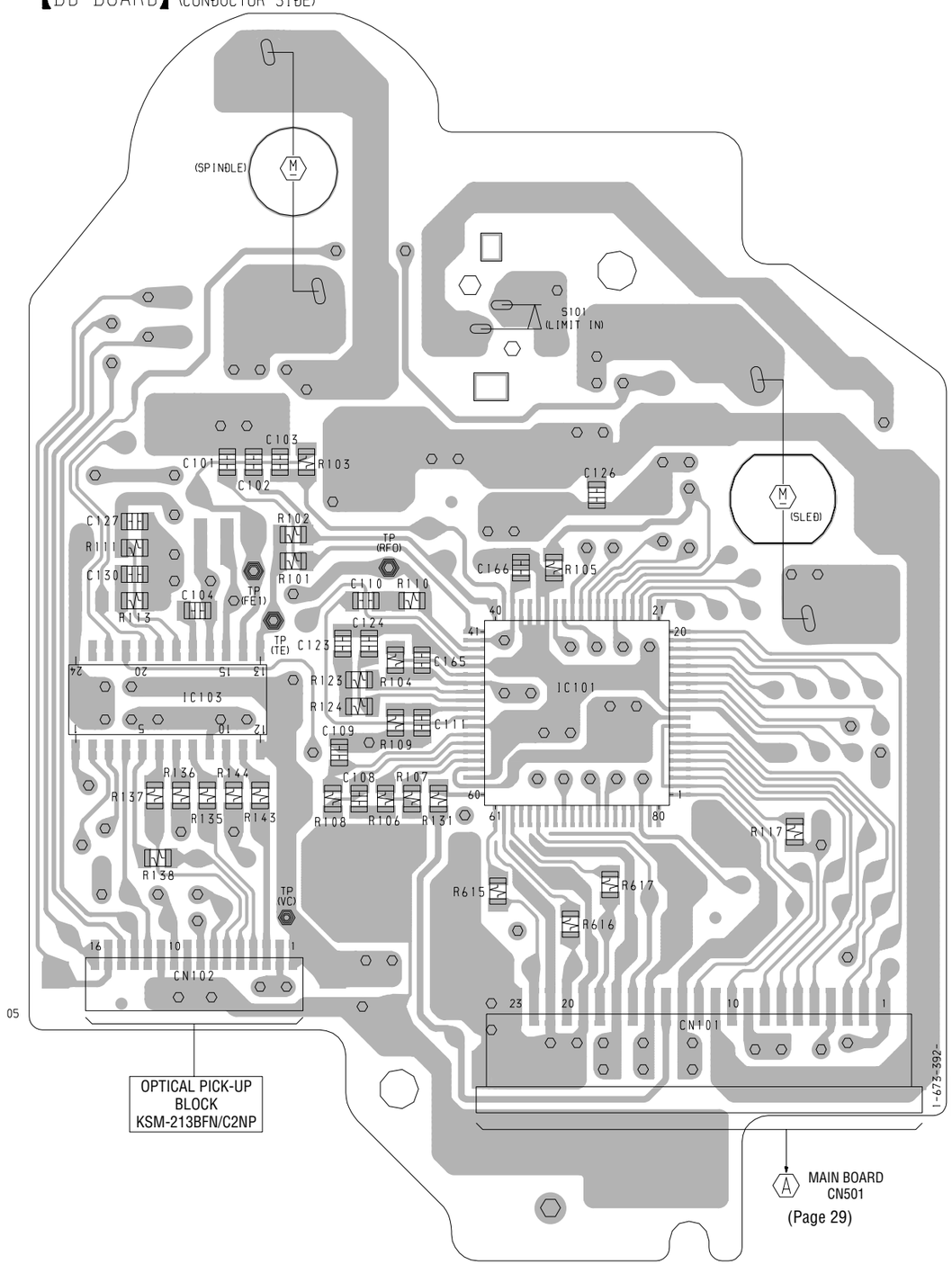


8-4. PRINTED WIRING BOARD – BD Board – **• See page 25 for Circuit Boards Location.**

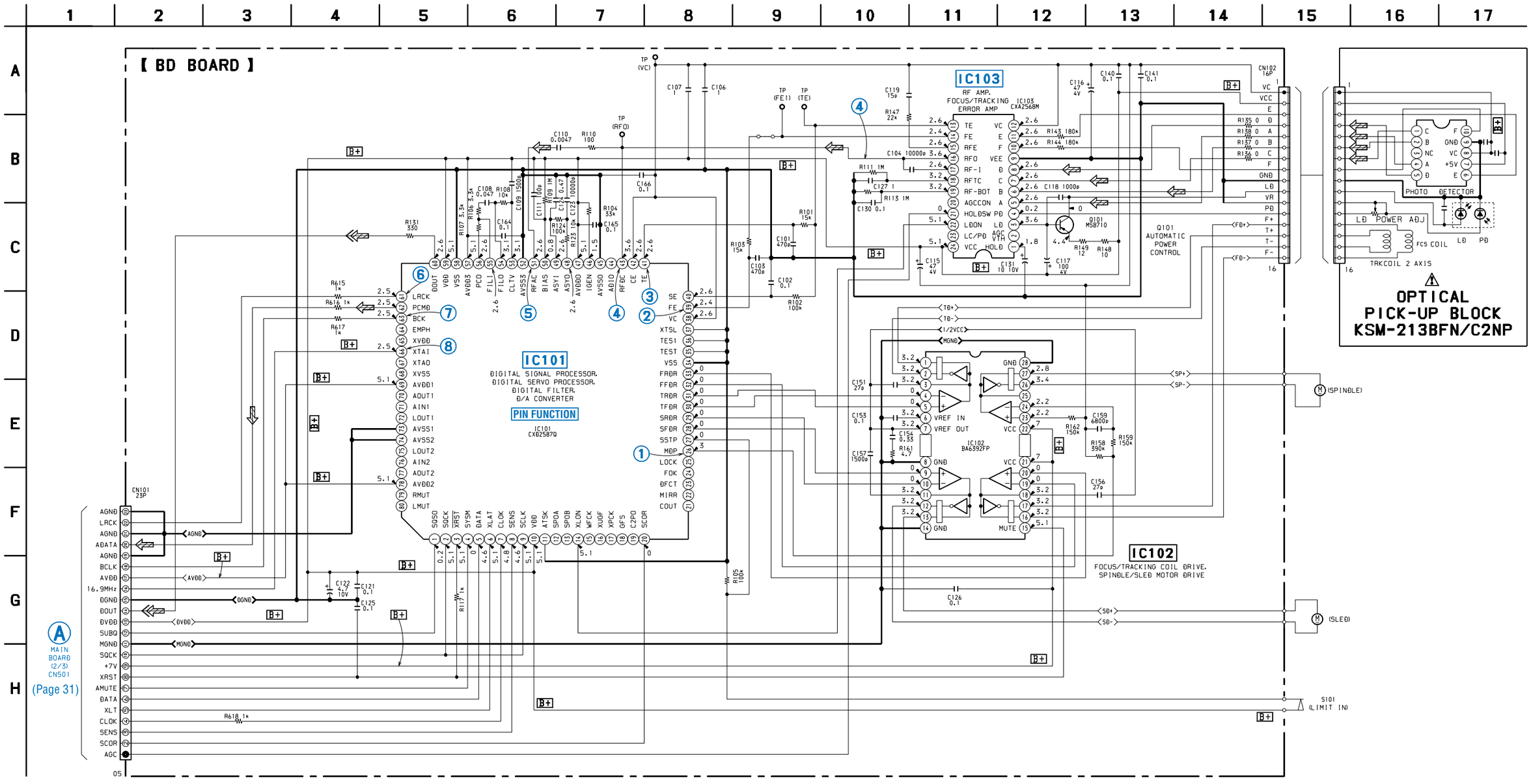
【BD BOARD】(COMPONENT SIDE)



【BD BOARD】(CONDUCTOR SIDE)

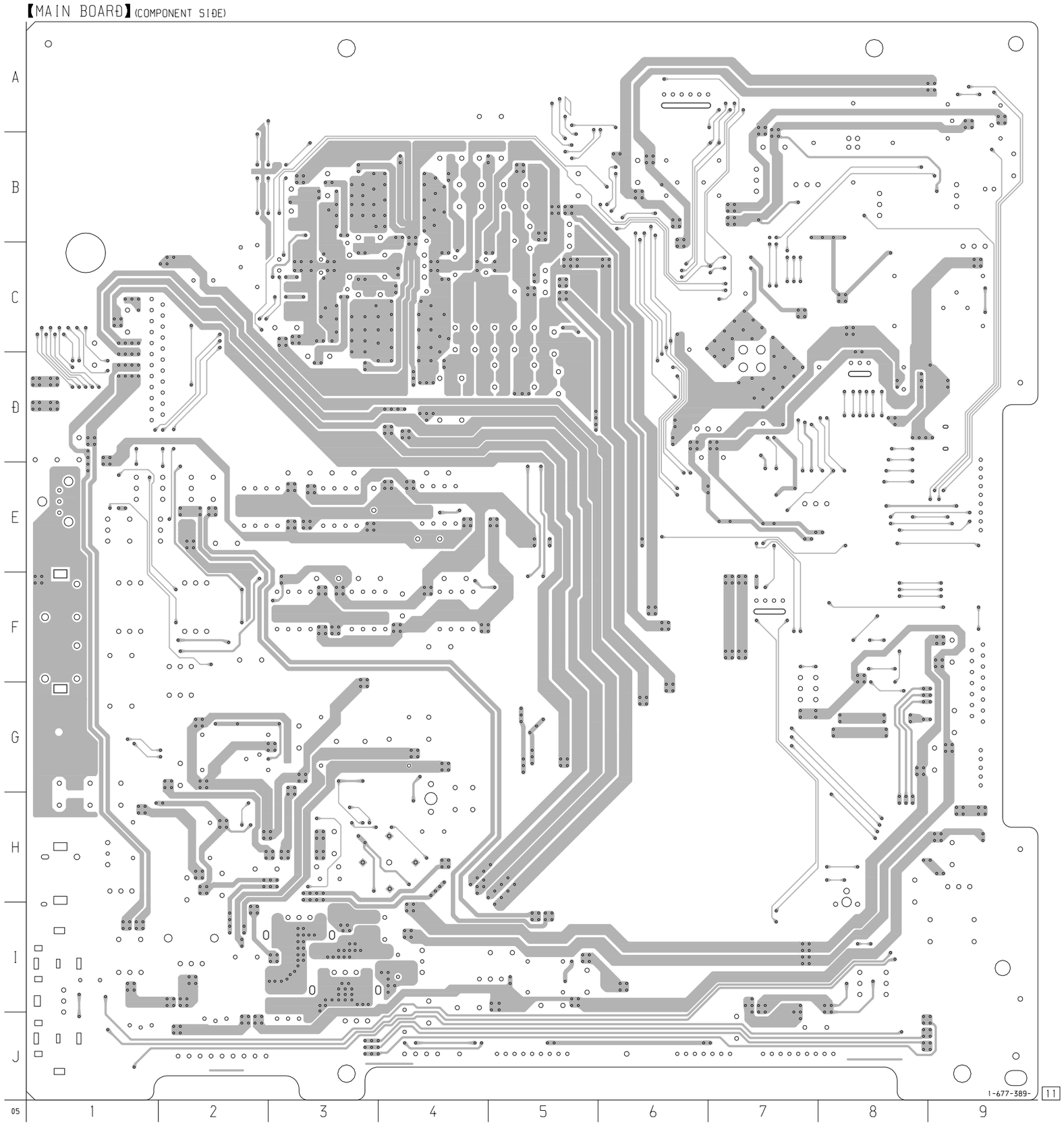


8-5. SCHEMATIC DIAGRAM – BD Board – • See page 33 for Waveforms. • See page 42 for IC Block Diagrams.

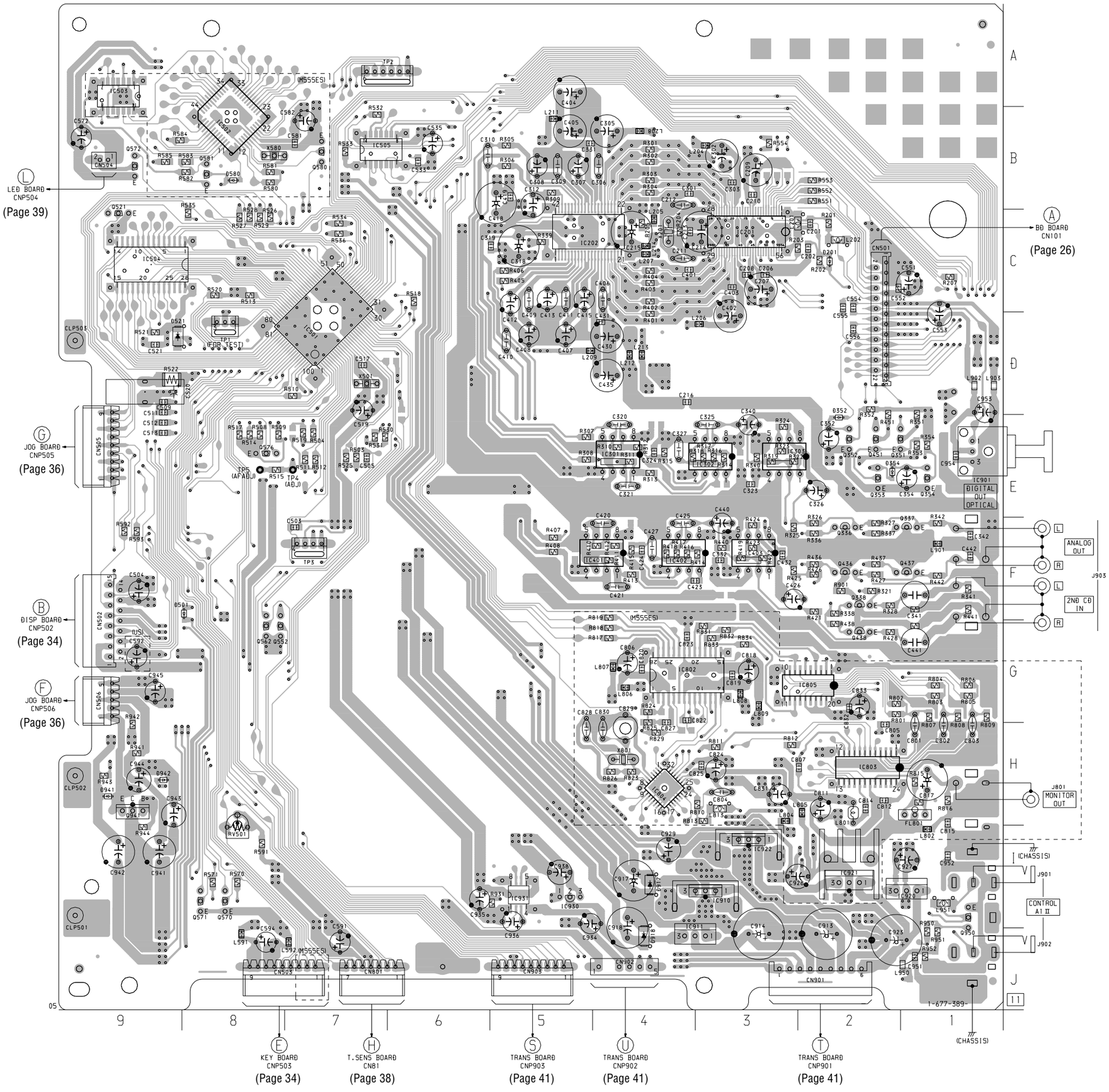


The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

8-6. PRINTED WIRING BOARD – MAIN Board – • See page 25 for Circuit Boards Location.



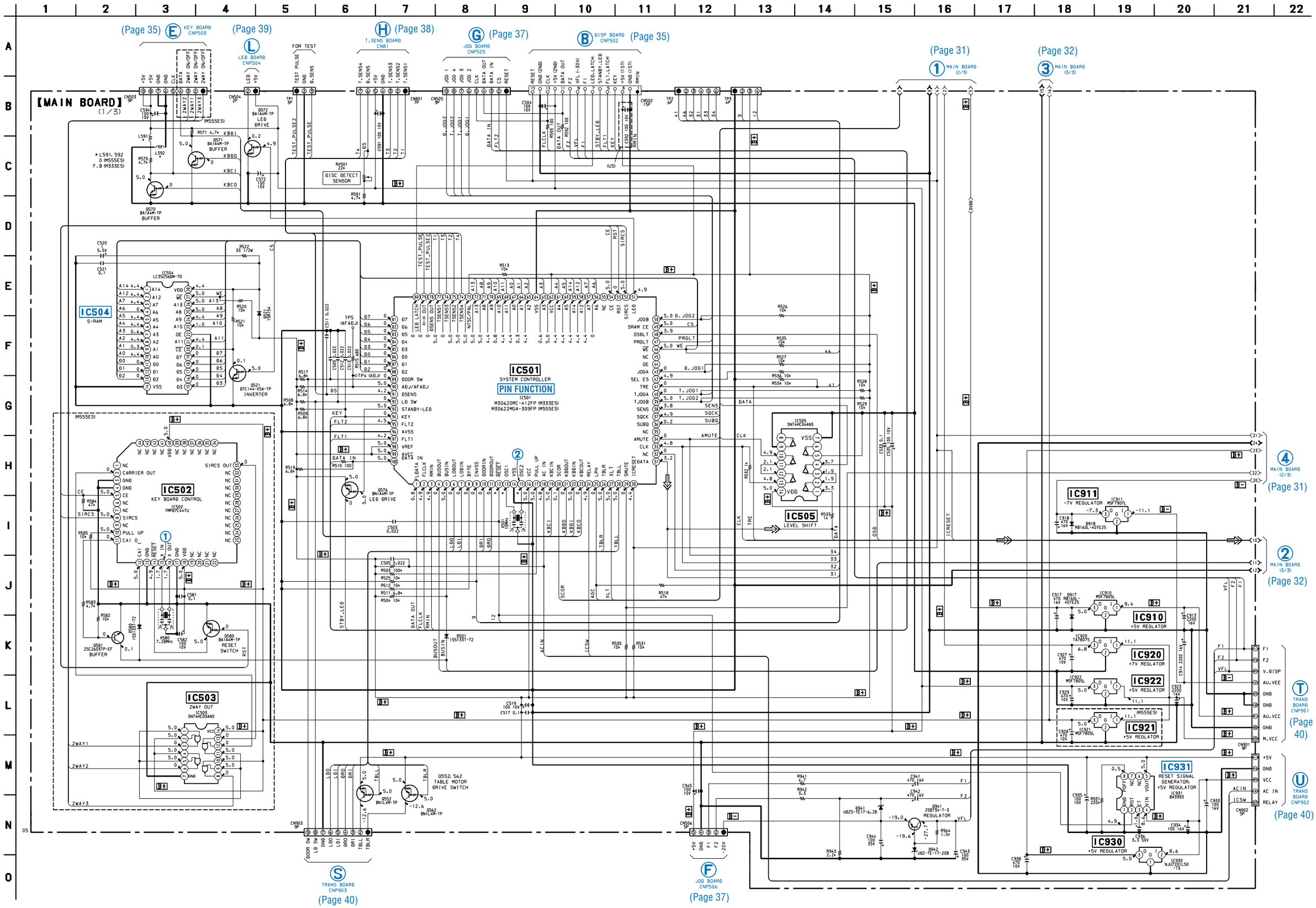
【MAIN BOARD】(CONDUCTOR SIDE)



- **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location
D201	C-2	IC911	J-4
D352	E-2	IC920	I-1
D354	E-2	IC921	I-2
D501	F-8	IC922	I-3
D521	D-9	IC930	I-5
D580	B-8	IC931	I-5
D917	I-4		
D918	J-4	Q336	F-2
D941	H-9	Q337	F-1
D942	H-9	Q338	F-2
		Q351	E-2
IC201	C-3	Q352	E-2
IC202	C-5	Q353	E-2
IC301	E-4	Q354	E-1
IC302	E-3	Q436	F-2
IC303	E-3	Q437	F-1
IC401	F-4	Q438	G-2
IC402	F-4	Q451	E-2
IC403	F-3	Q521	C-9
IC501	D-7	Q552	G-8
IC502	B-8	Q562	G-8
IC503	A-9	Q570	I-8
IC504	C-9	Q571	I-8
IC505	B-7	Q572	B-9
IC802	G-4	Q576	E-8
IC803	H-2	Q580	B-7
IC804	H-4	Q581	B-8
IC805	G-2	Q941	H-9
IC901	E-1	Q950	I-1
IC910	I-3		

8-7. SCHEMATIC DIAGRAM – MAIN Board (1/3) – • See page 33 for Waveforms. • See page 42 for IC Block Diagrams.



8-8. SCHEMATIC DIAGRAM – MAIN Board (2/3) –

• See page 33 for Waveforms. • See page 42 for IC Block Diagrams.

【MAIN BOARD】(2/3)

IC201 Ø/A CONVERTER IC201 CXD8735N

IC202 CURRENT PULSE IC202 CXA8055M

IC401 I-V AMP

IC402 (1/2) MIX AMP

IC402 (2/2) LOW-PASS FILTER

IC301 I-V AMP

IC302 (1/2) MIX AMP

IC302 (2/2) LOW-PASS FILTER

IC403 LINE AMP

IC303 LINE AMP

Q351-354, 451 MUTING CONTROL SWITCH

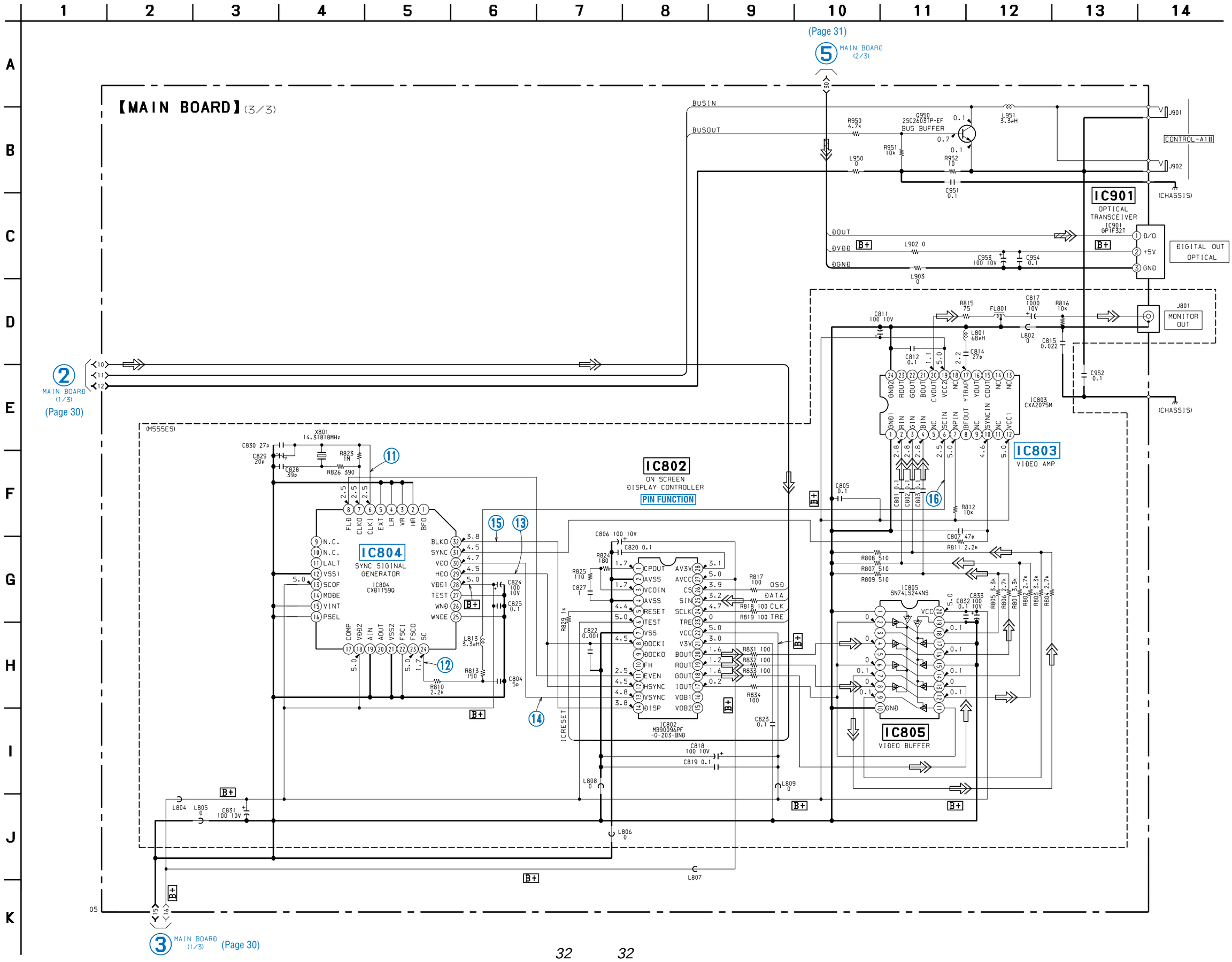
A BD BOARD CN101 (Page 27)

MAIN BOARD (1/3) 1 (Page 30)

5 MAIN BOARD (3/3) (Page 32)

4 MAIN BOARD (1/3) (Page 30)

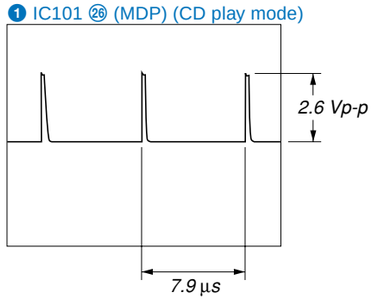
8-9. SCHEMATIC DIAGRAM – MAIN Board (3/3) – • See page 33 for Waveforms. • See page 42 for IC Block Diagrams.



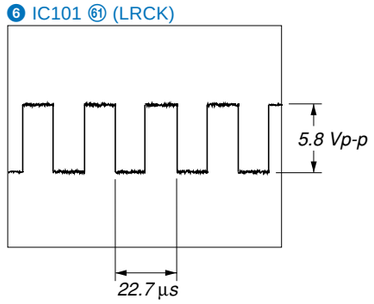
• **Waveforms**

– BD Board –

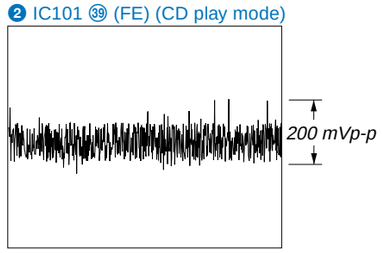
❶ IC101 ㉘ (MDP) (CD play mode)



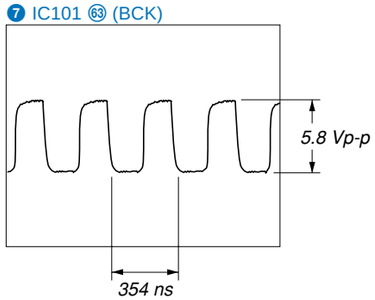
❻ IC101 ㊶ (LRCK)



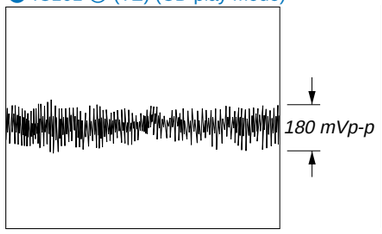
❷ IC101 ㊴ (FE) (CD play mode)



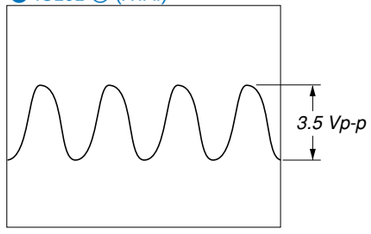
❼ IC101 ㊸ (BCK)



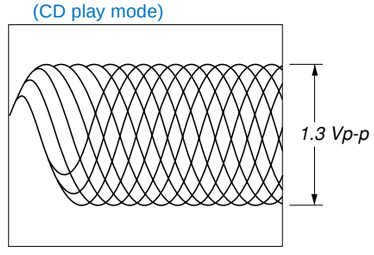
❸ IC101 ㊶ (TE) (CD play mode)



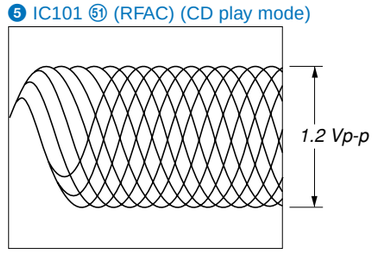
❽ IC101 ㊻ (XTAI)



❹ IC101 ㊸ (RFDC), IC103 ⑯ (RFO) (CD play mode)

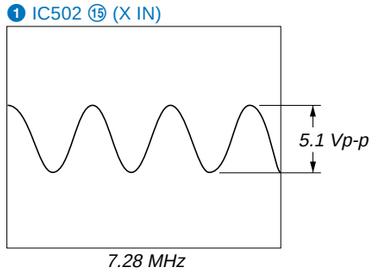


❺ IC101 ㊶ (RFAC) (CD play mode)

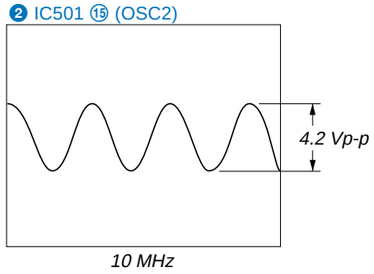


– MAIN Board –

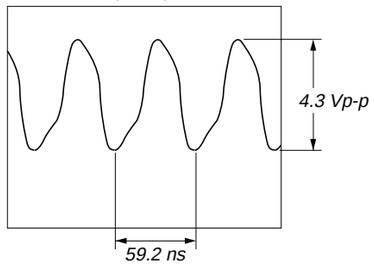
❶ IC502 ⑮ (X IN)



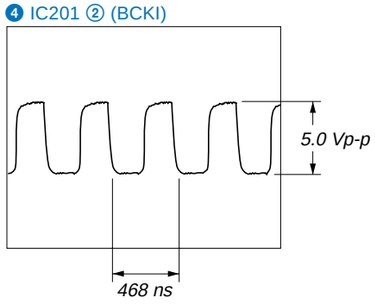
❷ IC501 ⑮ (OSC2)



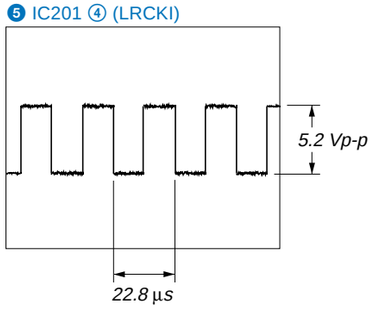
❸ IC201 ① (INVO)



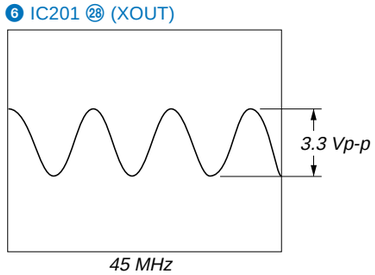
❹ IC201 ② (BCKI)



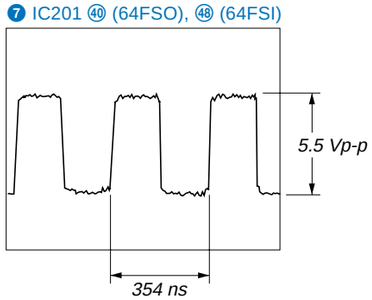
❺ IC201 ④ (LRCKI)



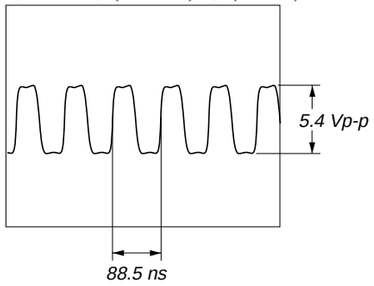
❻ IC201 ㉘ (XOUT)



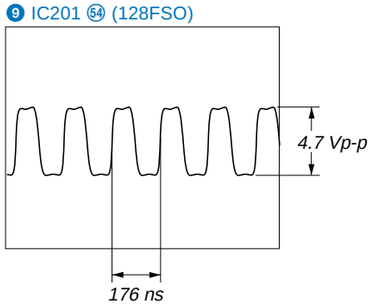
❼ IC201 ㊵ (64FSO), ㊽ (64FSI)



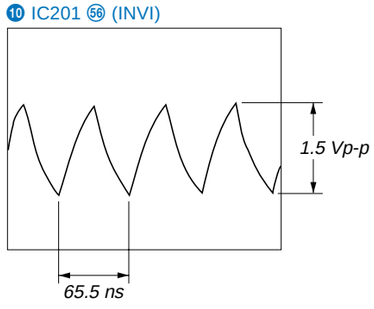
❽ IC201 ㊸ (256FSO), ㊼ (MCLKI)



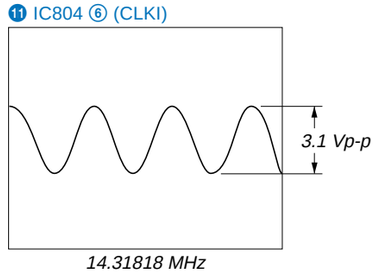
❾ IC201 ㊹ (128FSO)



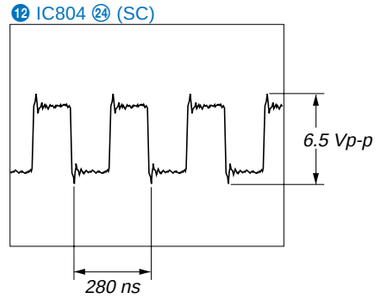
❿ IC201 ㊻ (INVI)



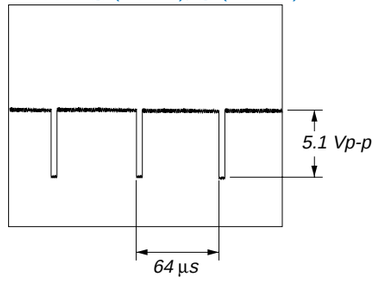
⓫ IC804 ⑥ (CLKI)



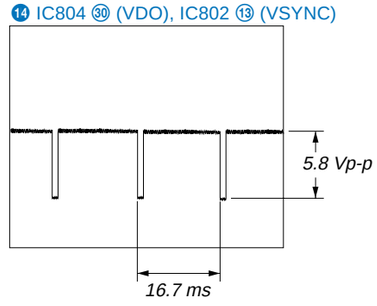
⓬ IC804 ㉔ (SC)



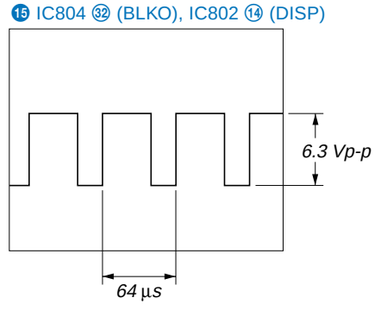
⓭ IC804 ㉙ (HDO), IC802 ⑧ (DOCKI), ⑫ (HSYNC)



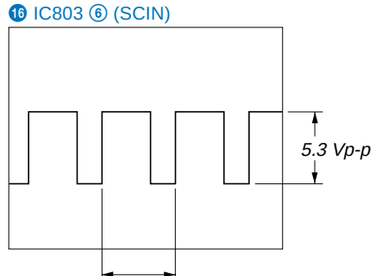
⓮ IC804 ㉚ (VDO), IC802 ⑬ (VSYNC)



⓯ IC804 ㉜ (BLKO), IC802 ⑭ (DISP)

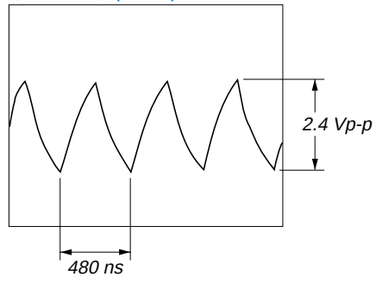


⓰ IC803 ⑥ (SCIN)



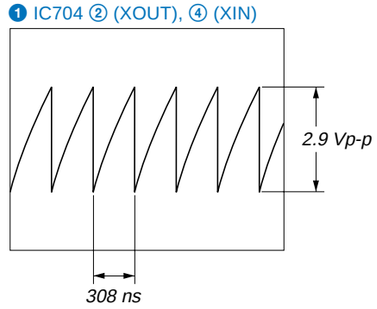
– DISP Board –

❶ IC701 ㊽ (OSC0)



– JOG Board –

❶ IC704 ② (XOUT), ④ (XIN)



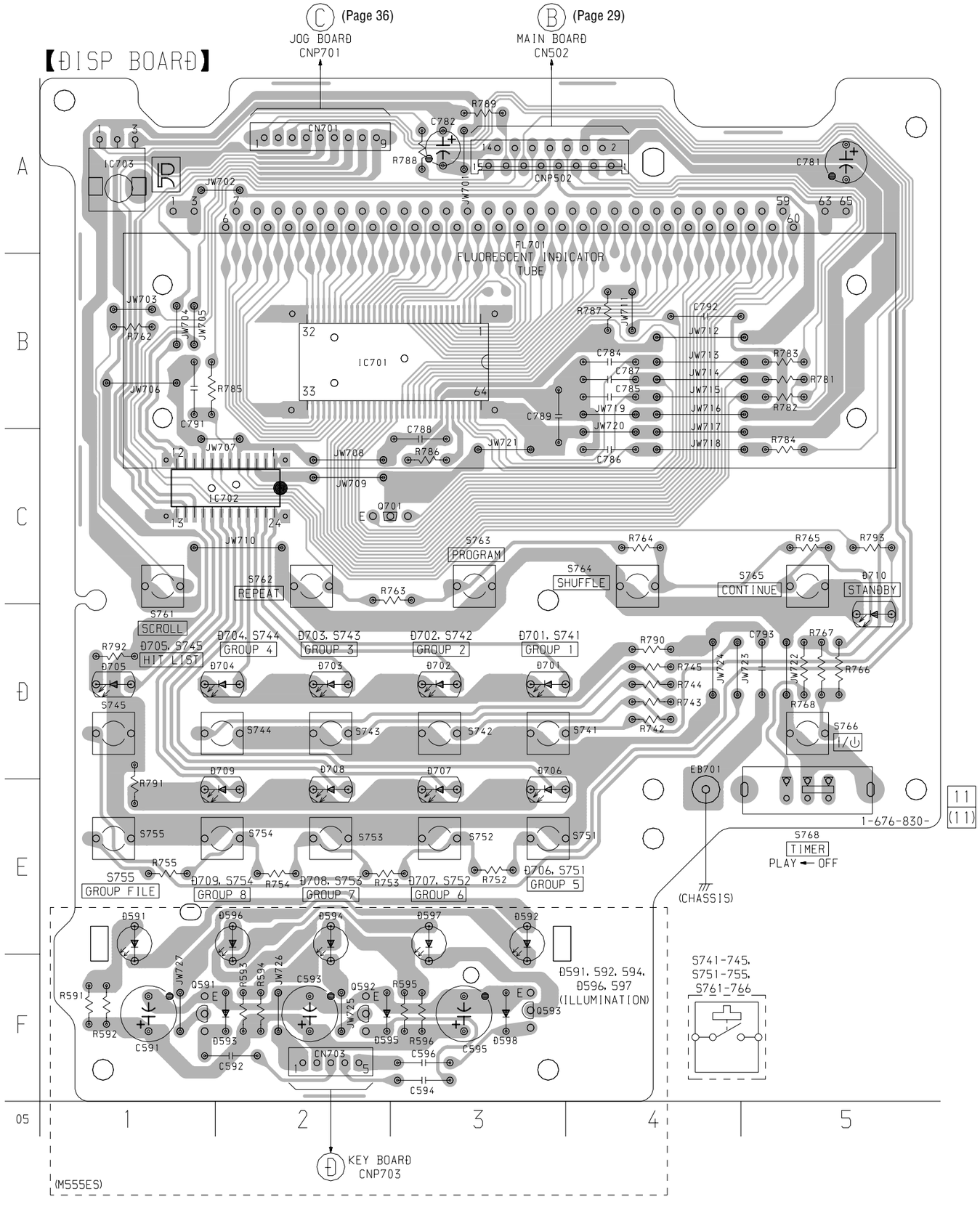
8-10. PRINTED WIRING BOARDS – DISP/KEY Boards –

• See page 25 for Circuit Boards Location.

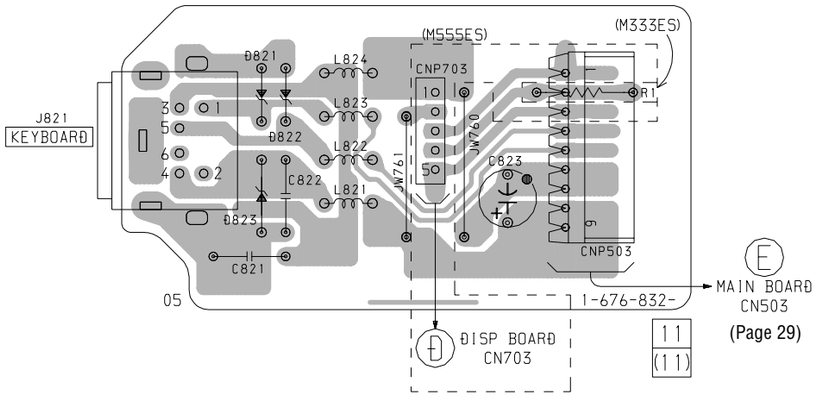
- **Semiconductor Location**

Ref. No.	Location
D591	E-1
D592	E-3
D593	F-2
D594	E-2
D595	F-2
D596	E-2
D597	E-3
D598	F-3
D701	D-3
D702	D-3
D703	D-2
D704	D-2
D705	D-1
D706	E-3
D707	E-3
D708	E-2
D709	E-2
D710	D-5
IC701	B-3
IC702	C-2
IC703	A-1
Q591	F-1
Q592	F-2
Q593	F-3
Q701	C-2

【DISP BOARD】

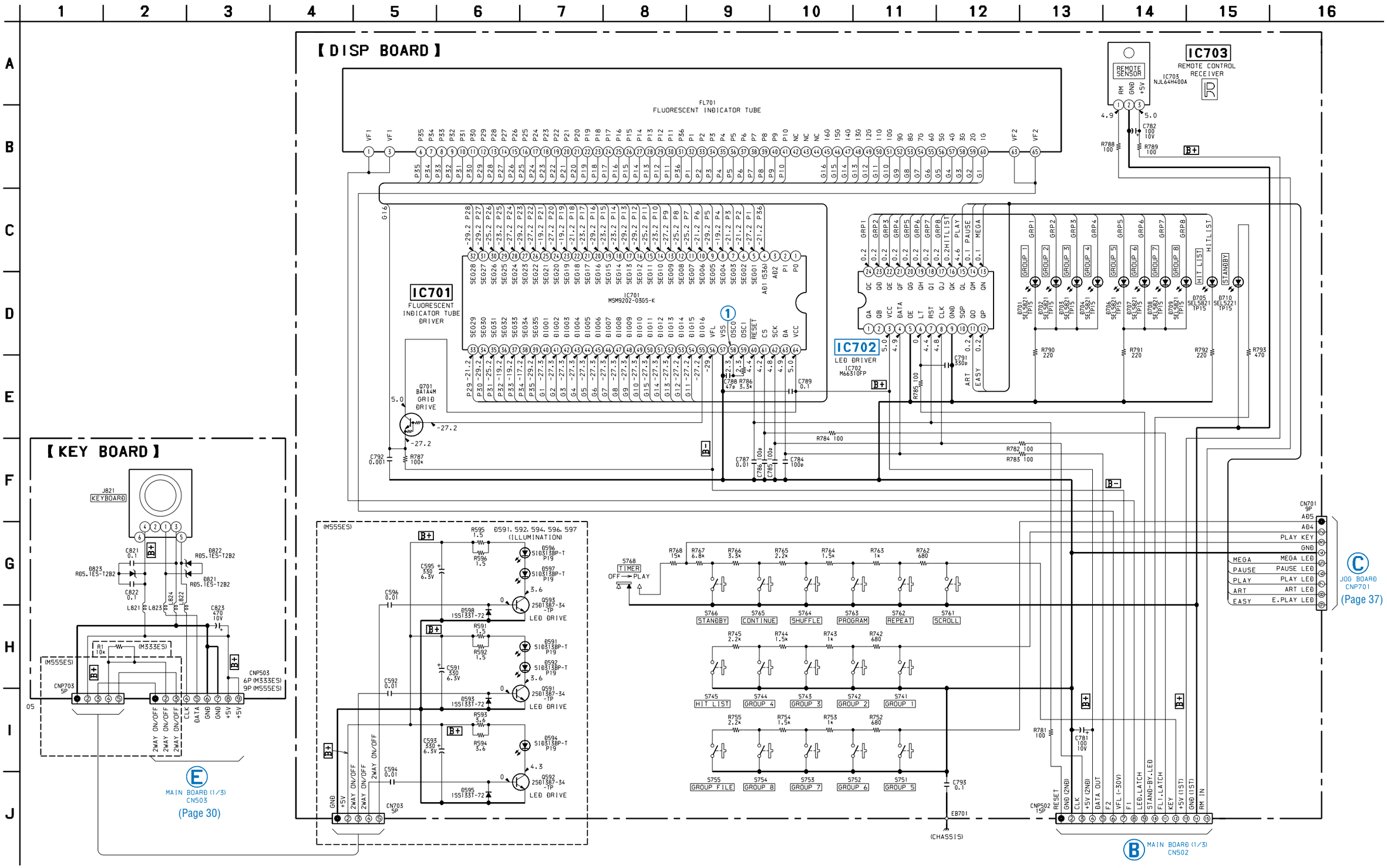


【KEY BOARD】

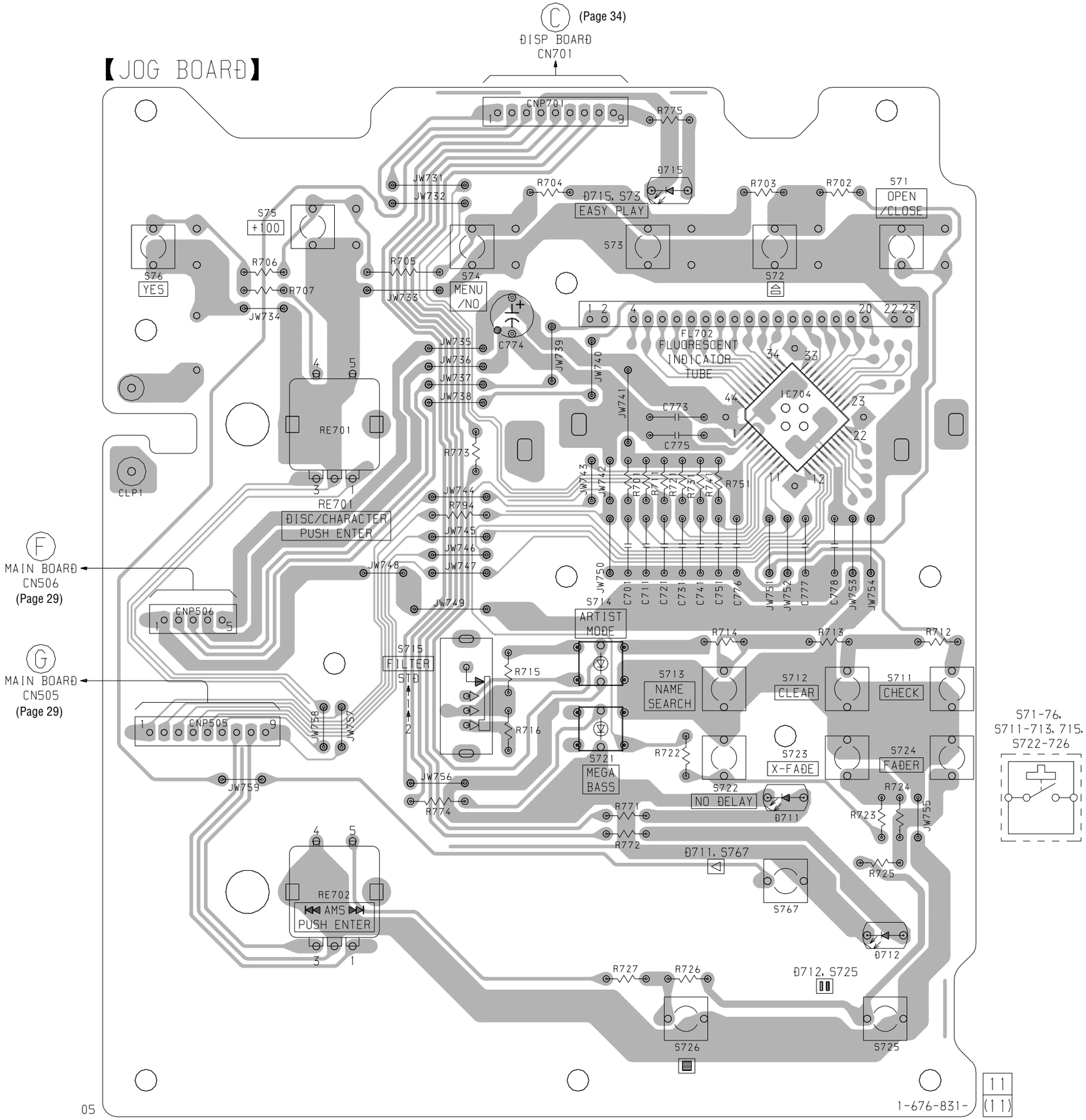


8-11. SCHEMATIC DIAGRAM – DISP/KEY Boards –

• See page 33 for Waveform. • See page 42 for IC Block Diagram.

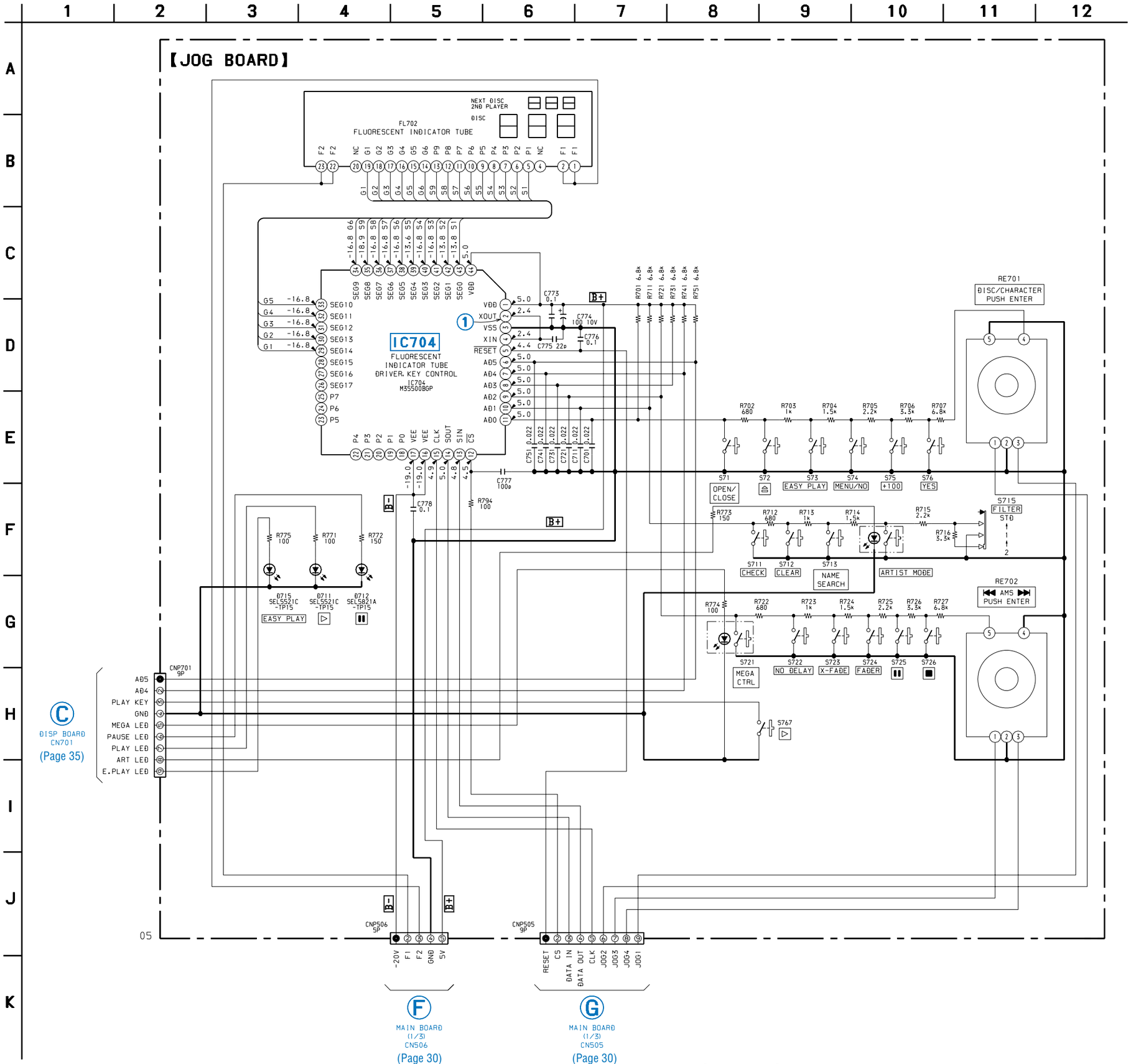


8-12. PRINTED WIRING BOARD – JOG Board – • See page 25 for Circuit Boards Location.



8-13. SCHEMATIC DIAGRAM – JOG Board –

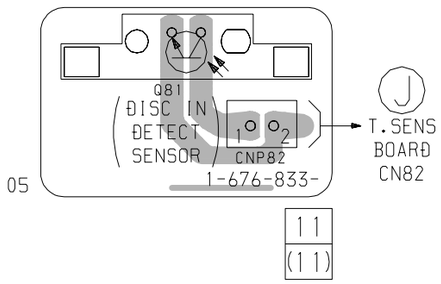
• See page 33 for Waveform. • See page 42 for IC Block Diagram.



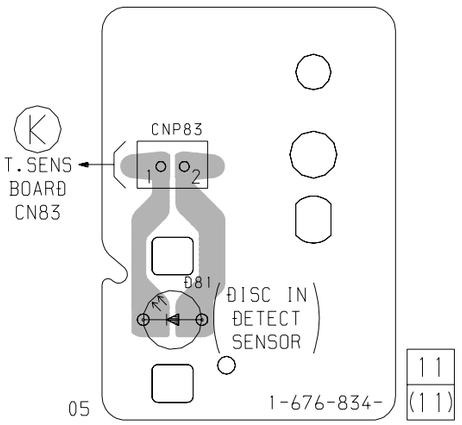
8-14. PRINTED WIRING BOARDS – D. SENS (IN)/D. SENS (OUT)/T. SENS Boards –

• See page 25 for Circuit Boards Location.

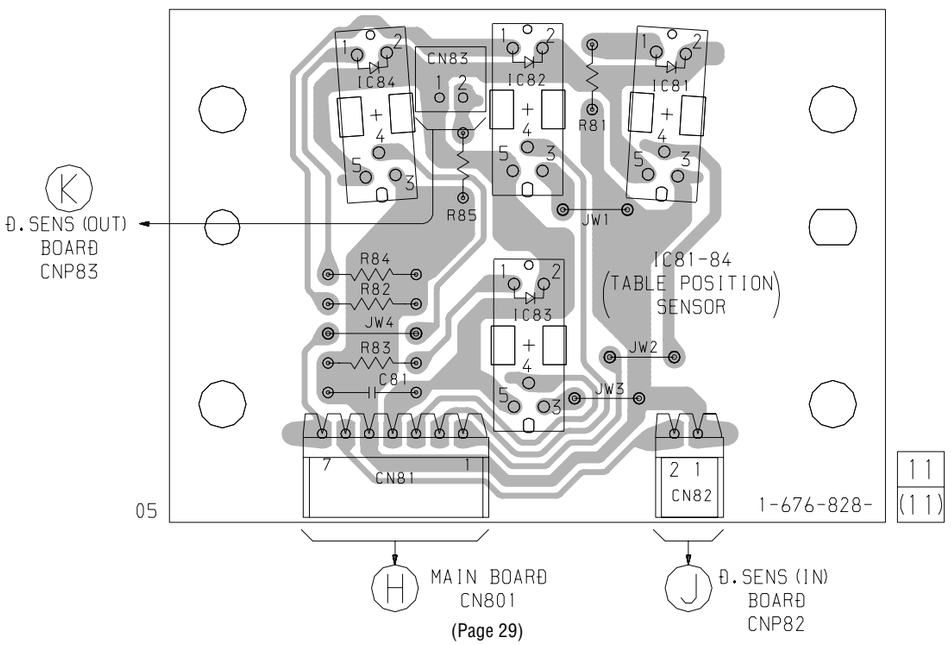
【D. SENS (IN) BOARD】



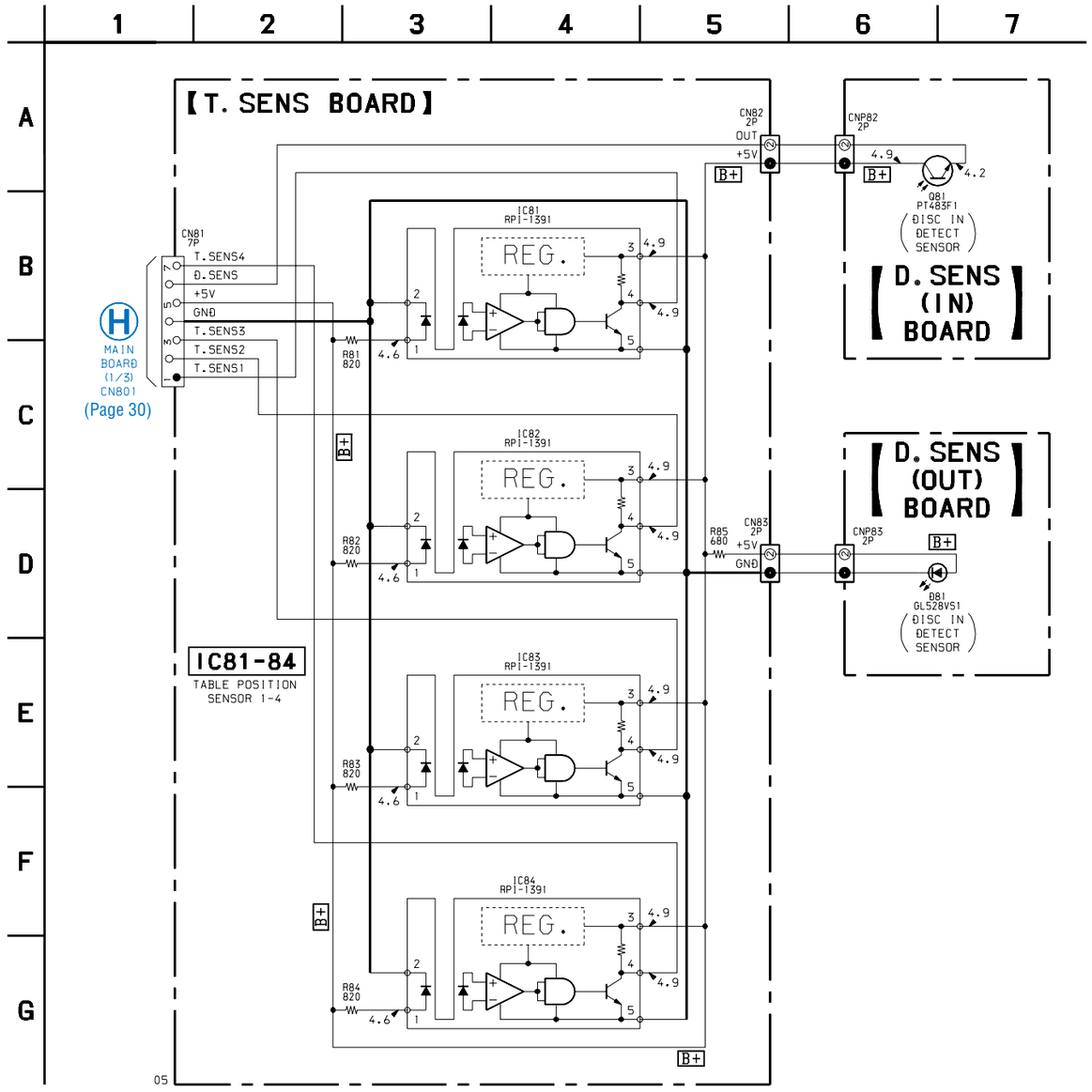
【D. SENS (OUT) BOARD】



【T. SENS BOARD】

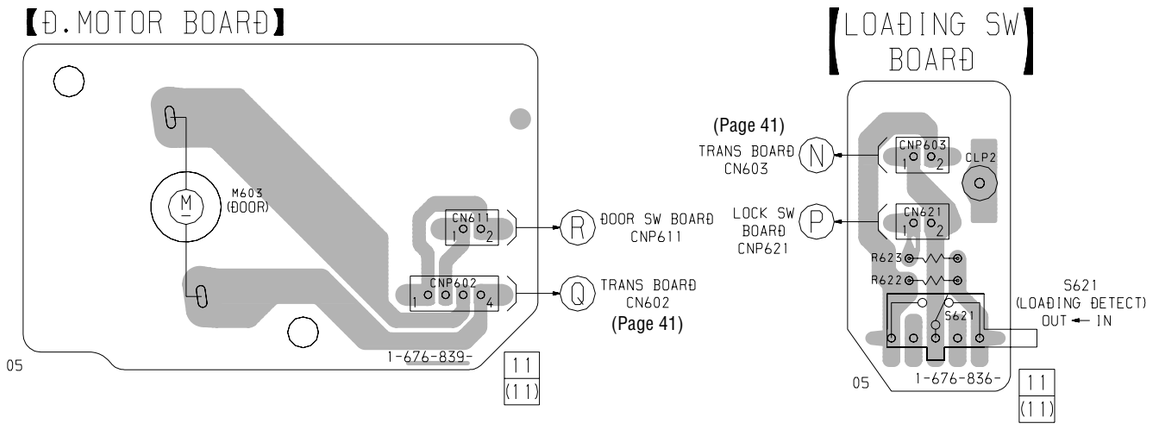


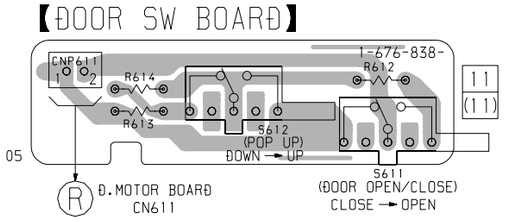
8-15. SCHEMATIC DIAGRAM – D. SENS (IN)/D. SENS (OUT)/T. SENS Boards –

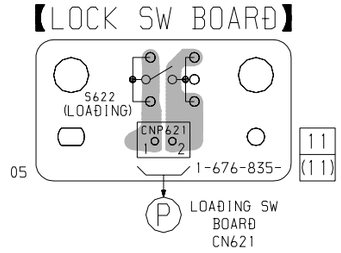


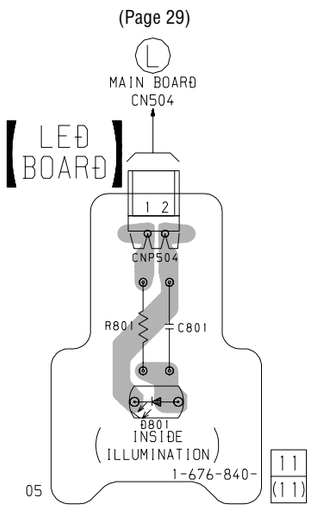
8-16. PRINTED WIRING BOARDS
– D. MOTOR/DOOR SW/LED/LOADING SW/LOCK SW/L. T. MOTOR Boards –

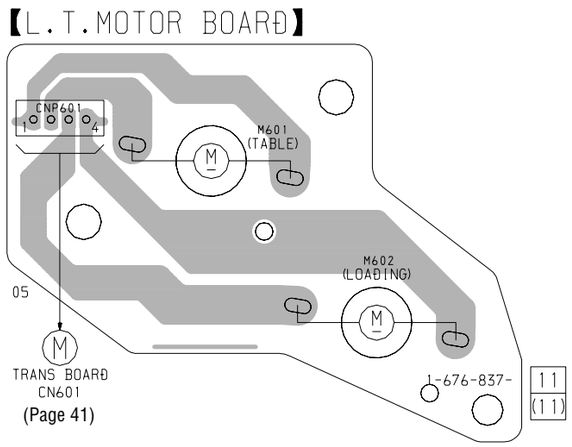
• See page 25 for Circuit Boards Location.



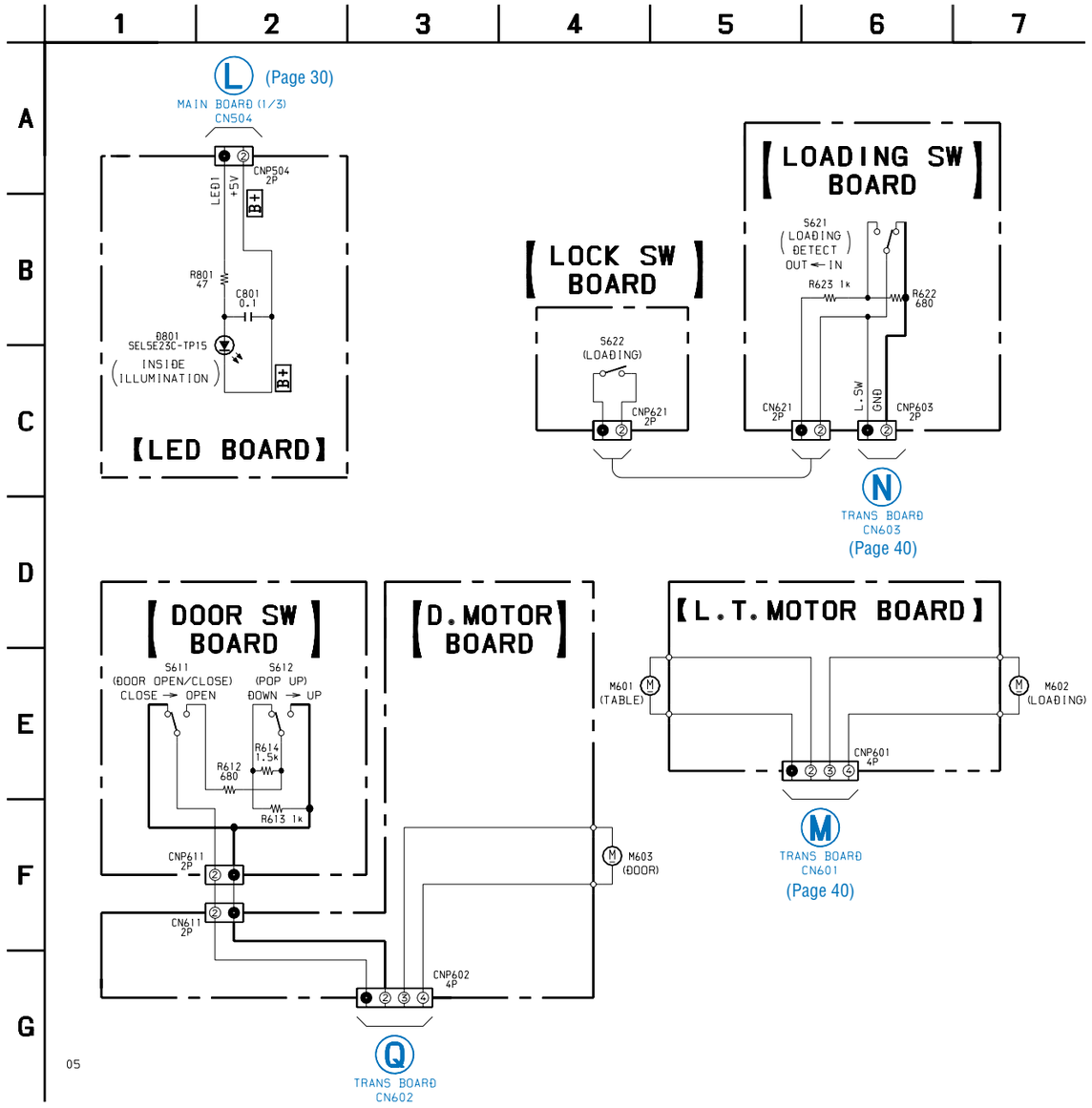




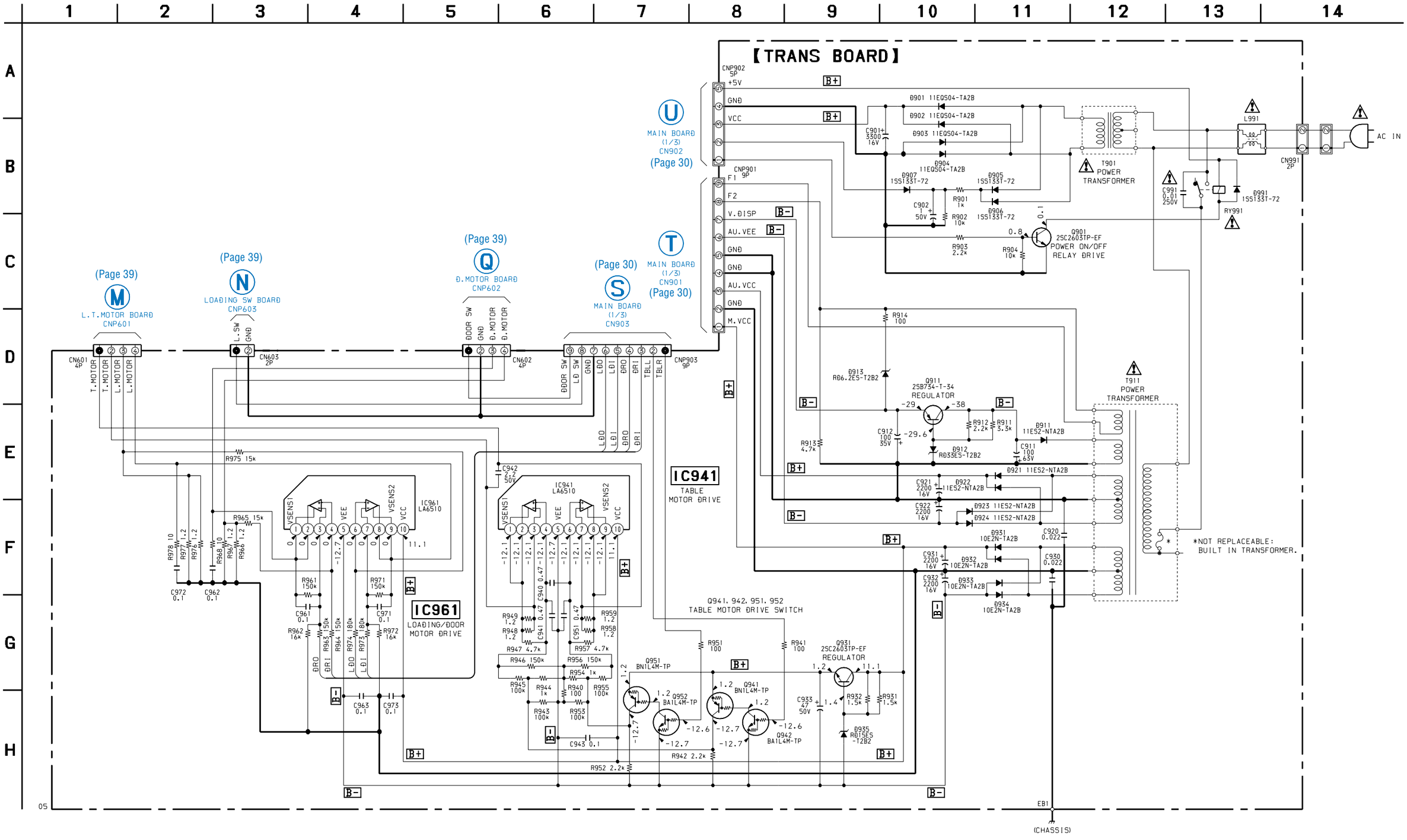




8-17. SCHEMATIC DIAGRAM
– D. MOTOR/DOOR SW/LED/LOADING SW/LOCK SW/L. T. MOTOR Boards –

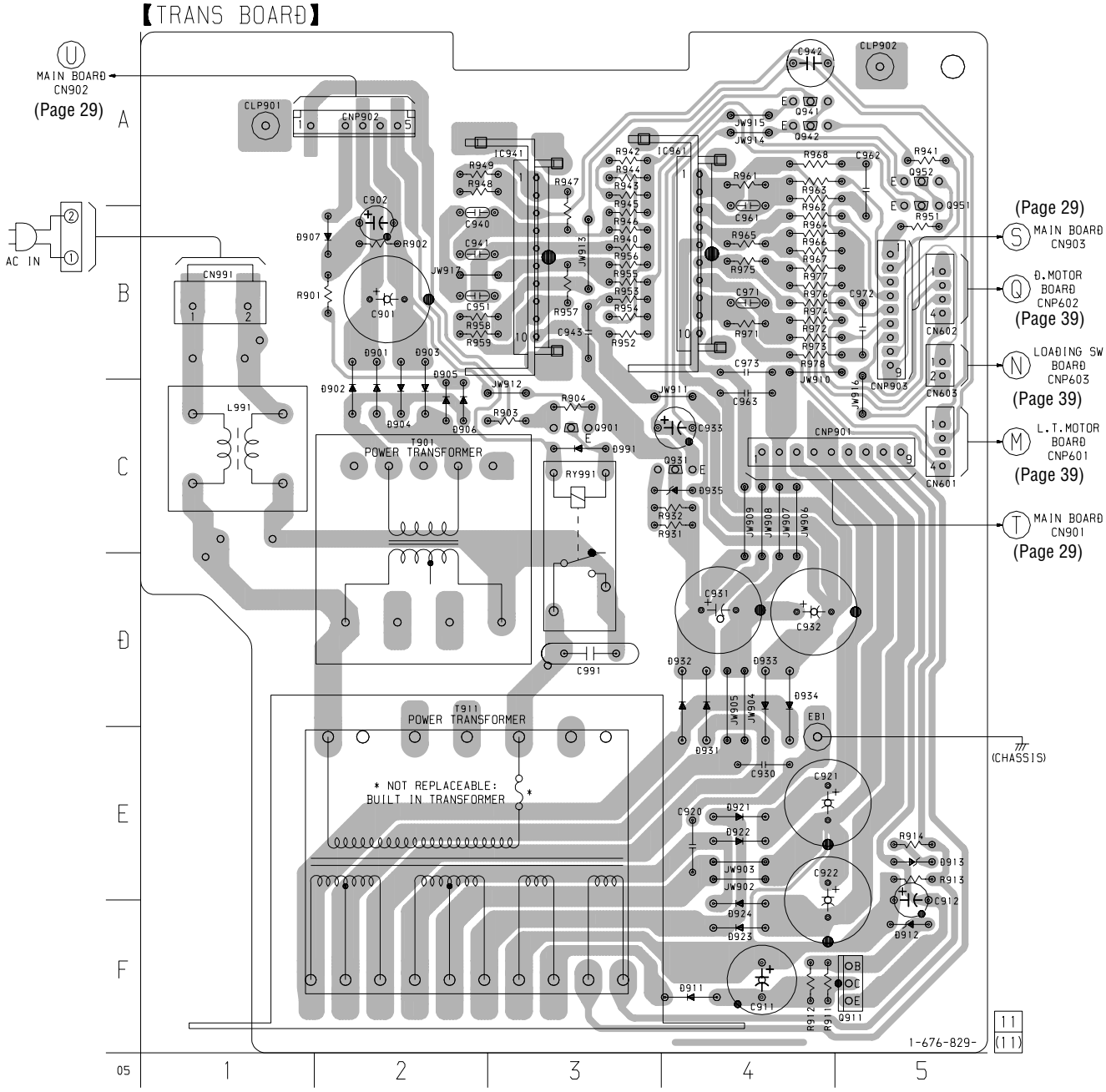


8-18. SCHEMATIC DIAGRAM – TRANS Board –



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

8-19. PRINTED WIRING BOARD – TRANS Board – • See page 25 for Circuit Boards Location.

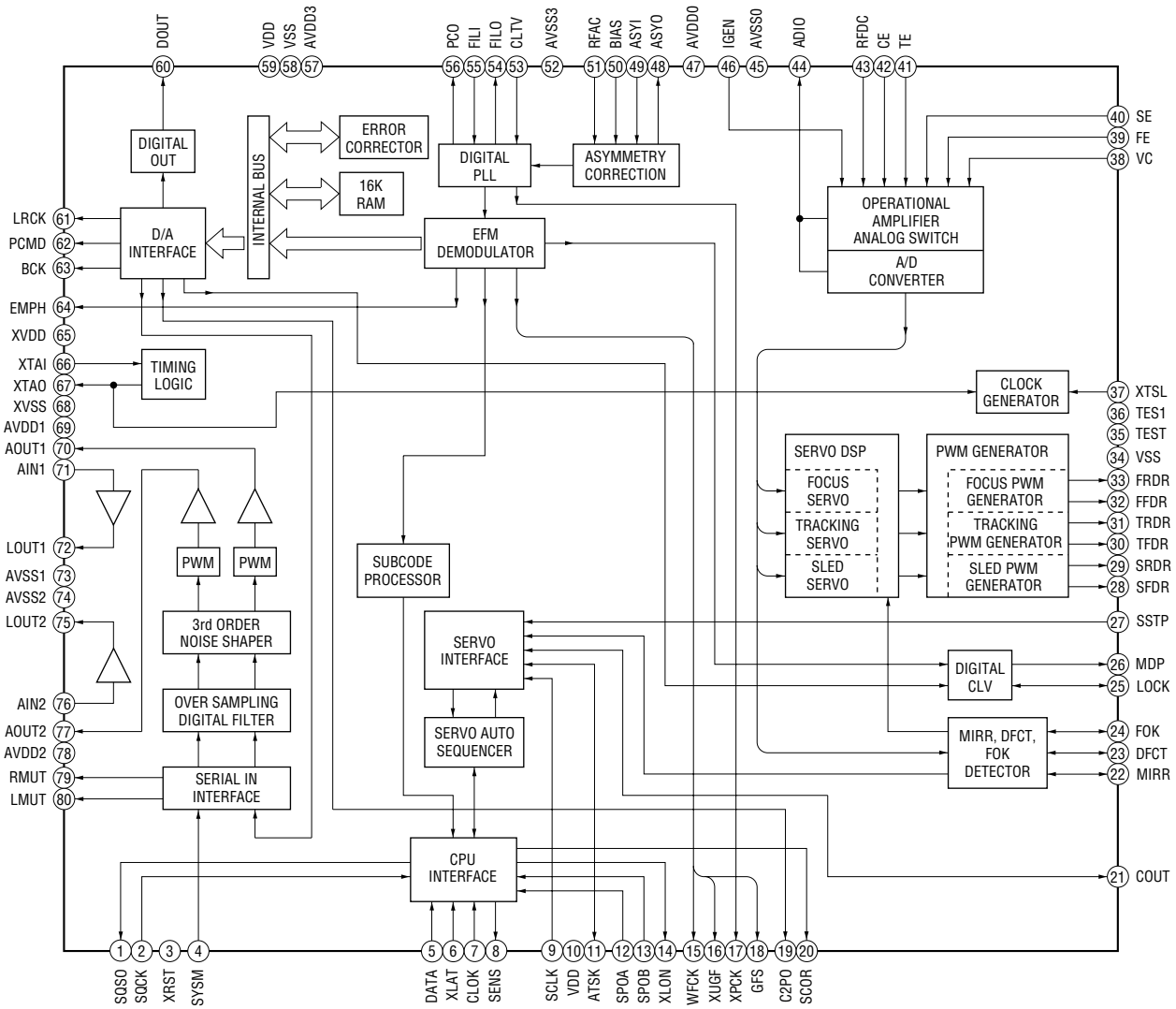


- **Semiconductor Location**

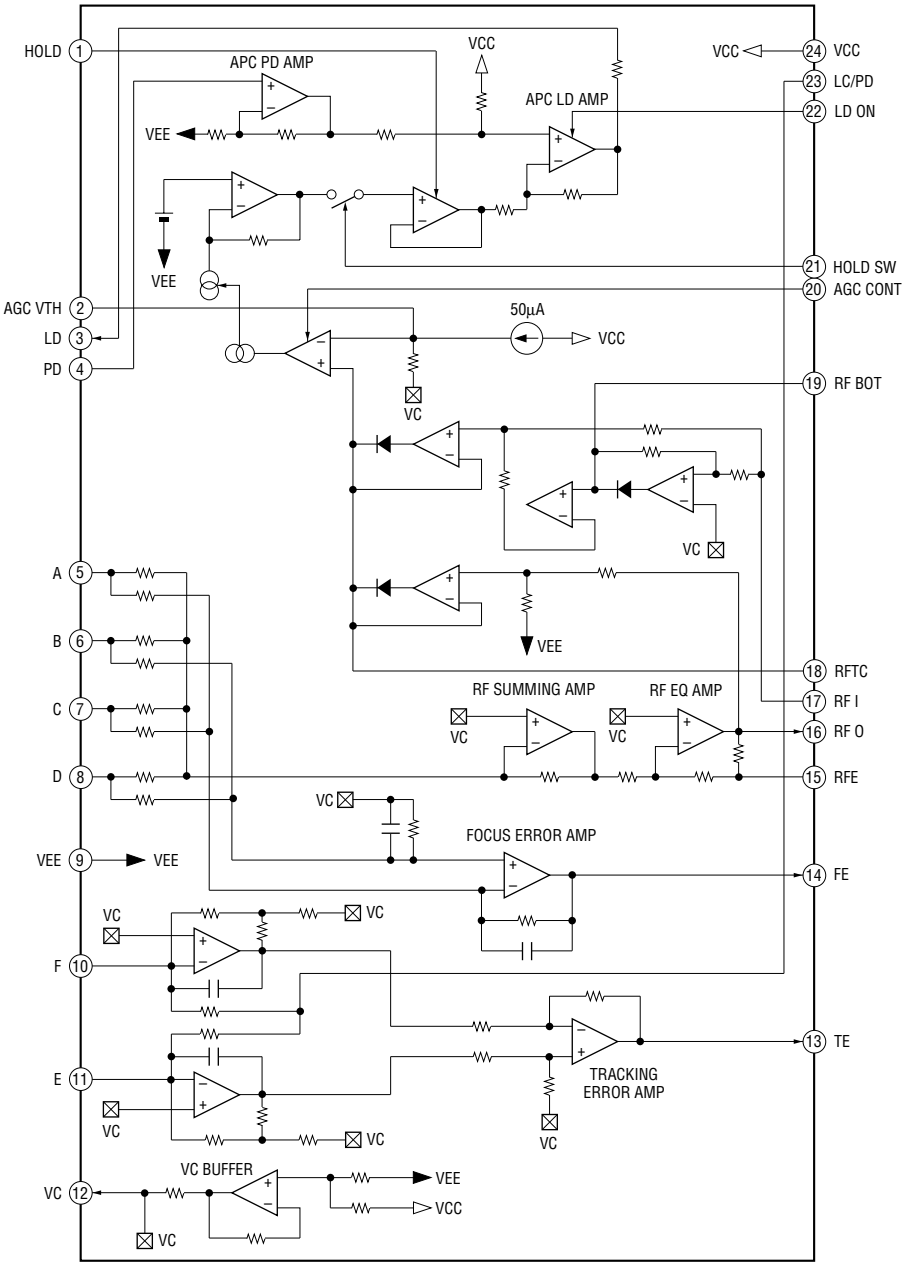
Ref. No.	Location	Ref. No.	Location
D901	C-2	D933	D-4
D902	C-2	D934	D-4
D903	C-2	D935	C-4
D904	C-2	D991	C-3
D905	C-2		
D906	C-2	IC941	B-3
D907	B-2	IC961	B-4
D911	F-4		
D912	F-5	Q901	C-3
D913	E-5	Q911	F-5
D921	E-4	Q931	C-4
D922	E-4	Q941	A-4
D923	F-4	Q942	A-4
D924	F-4	Q951	A-5
D931	D-4	Q952	A-5
D932	D-4		

• **IC Block Diagrams**
– BD Board –

IC101 CXD2587Q

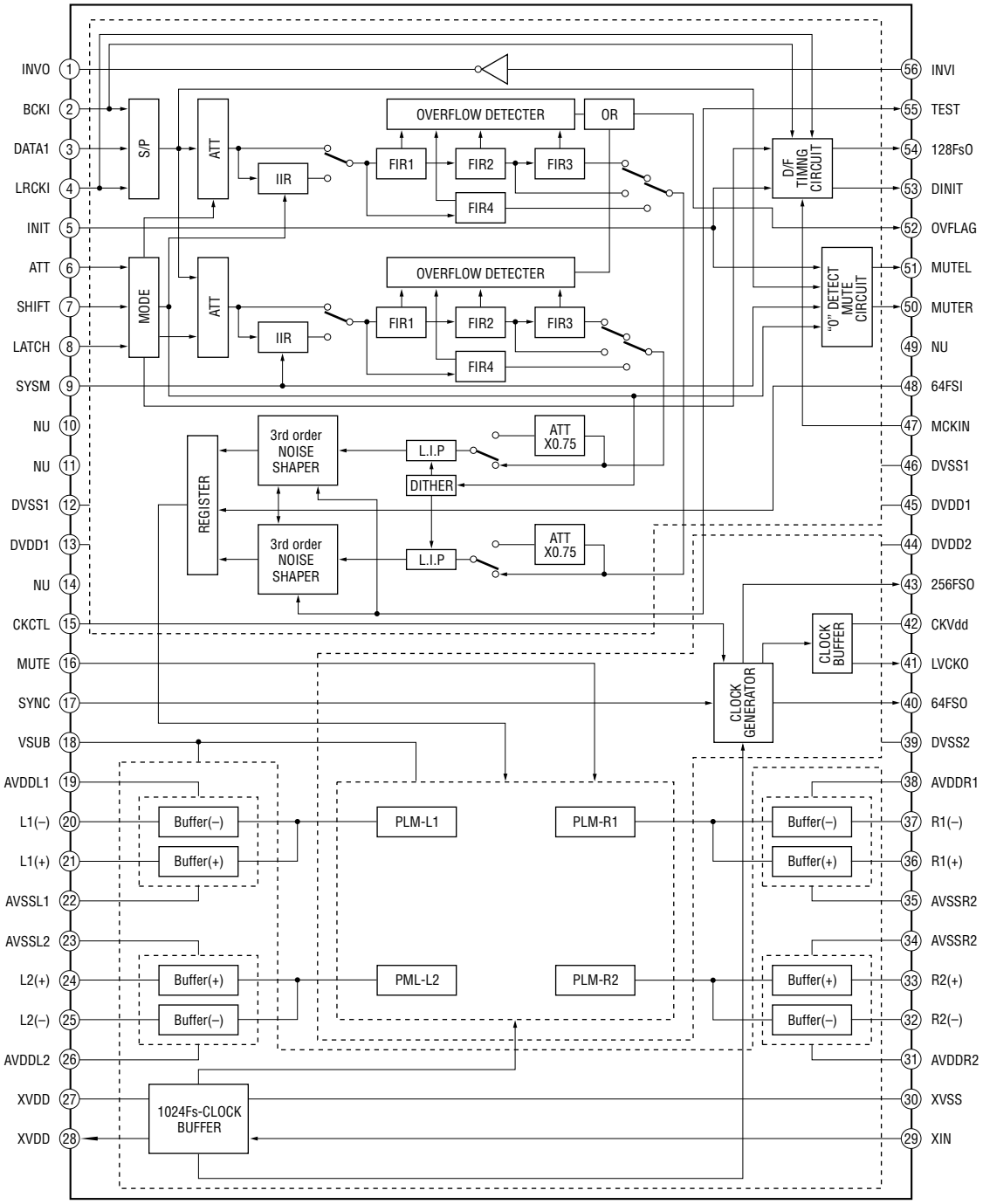


IC103 CXA2568M-T6

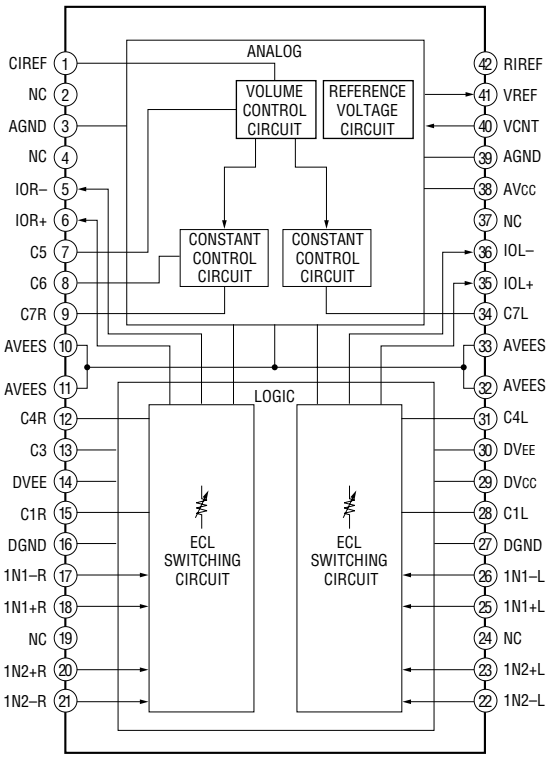


– MAIN Board –

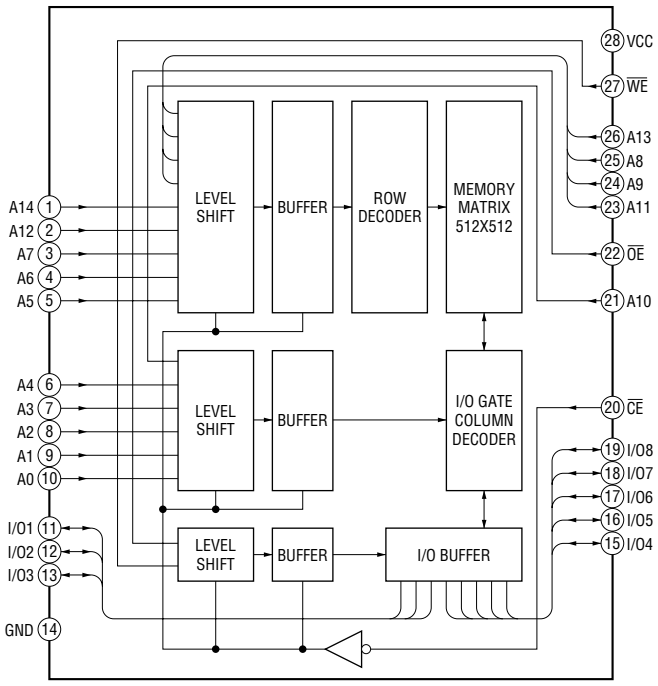
IC201 CXD8735N



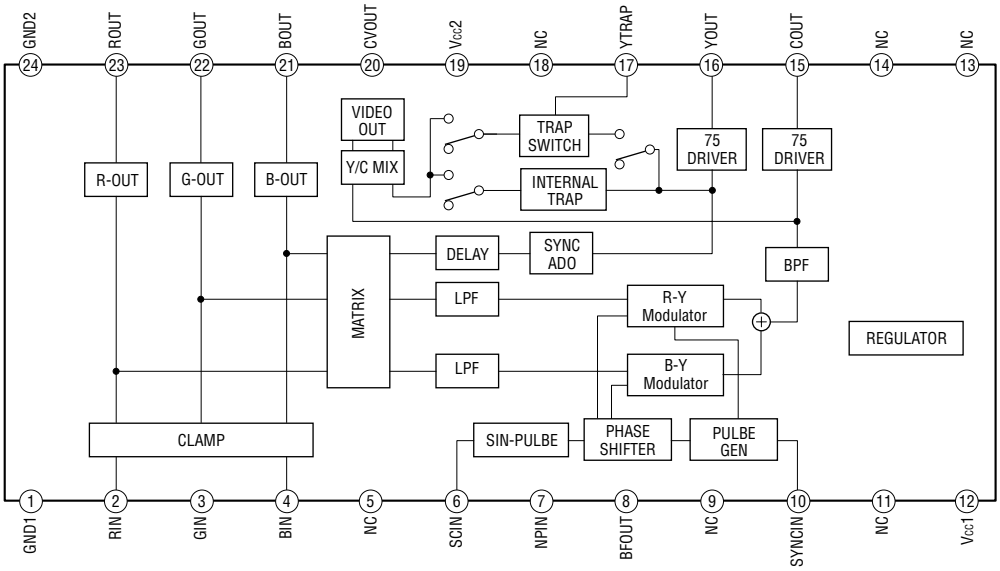
IC202 CXA8055M



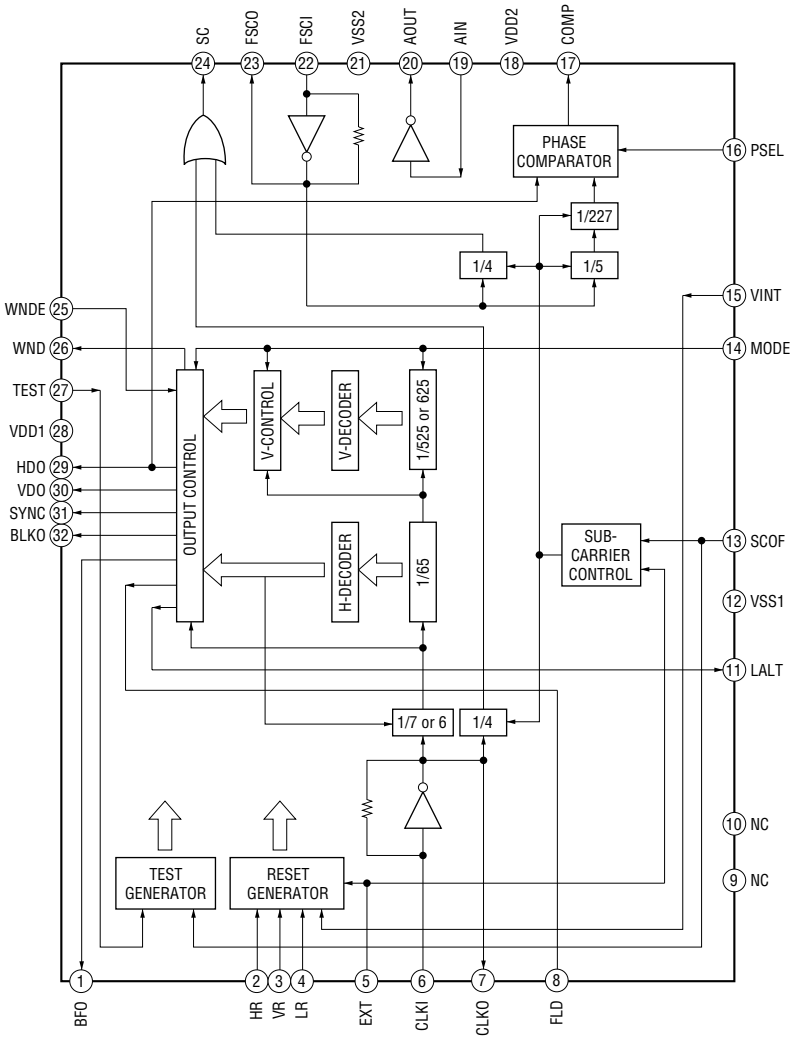
IC504 LC35256DM-70-TLM



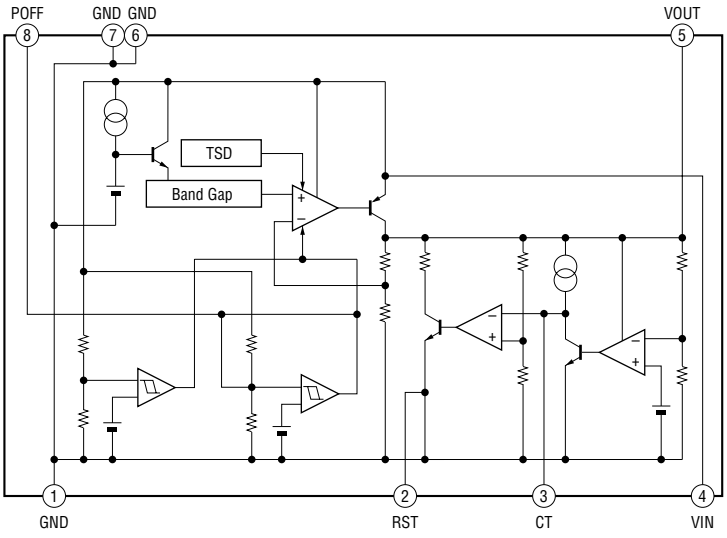
IC803 CXA2075M (CDP-M555ES)



IC804 CXD1159Q (CDP-M555ES)

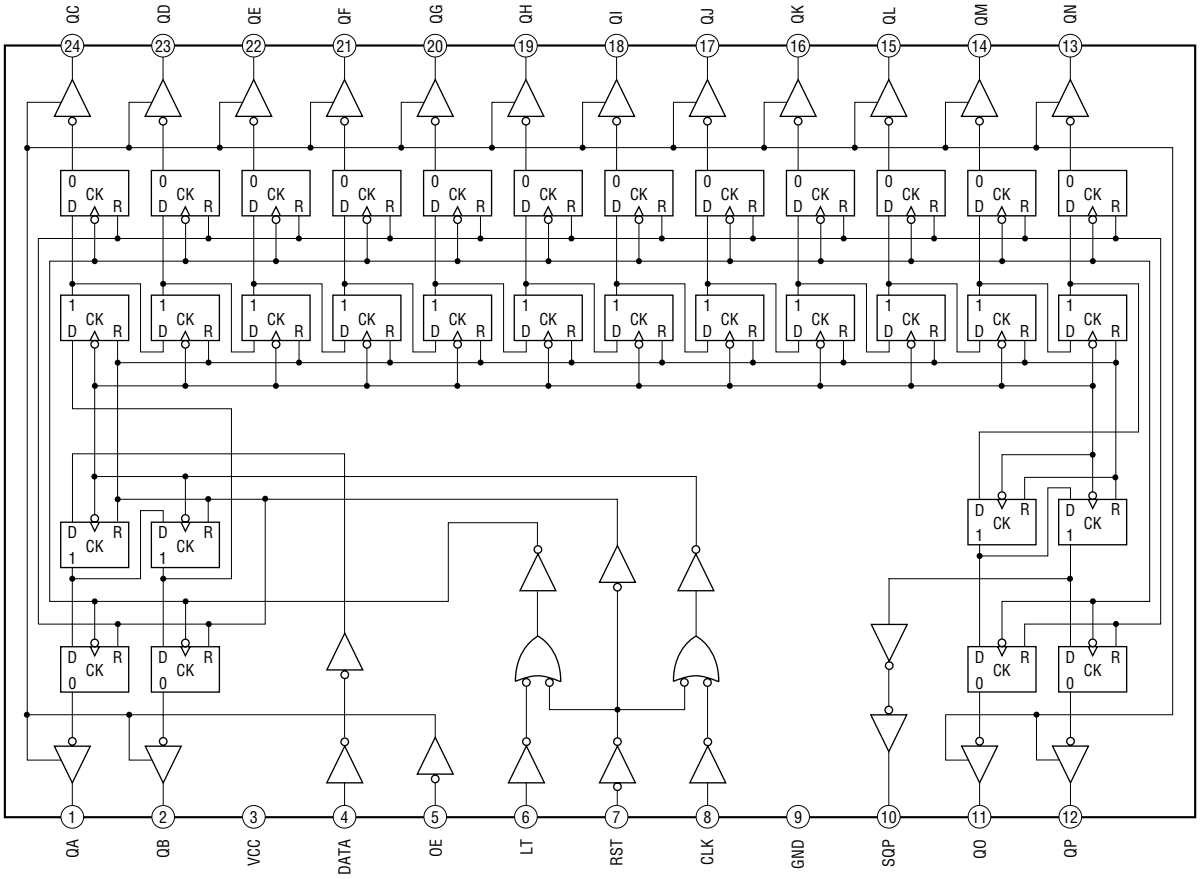


IC931 BA3993F



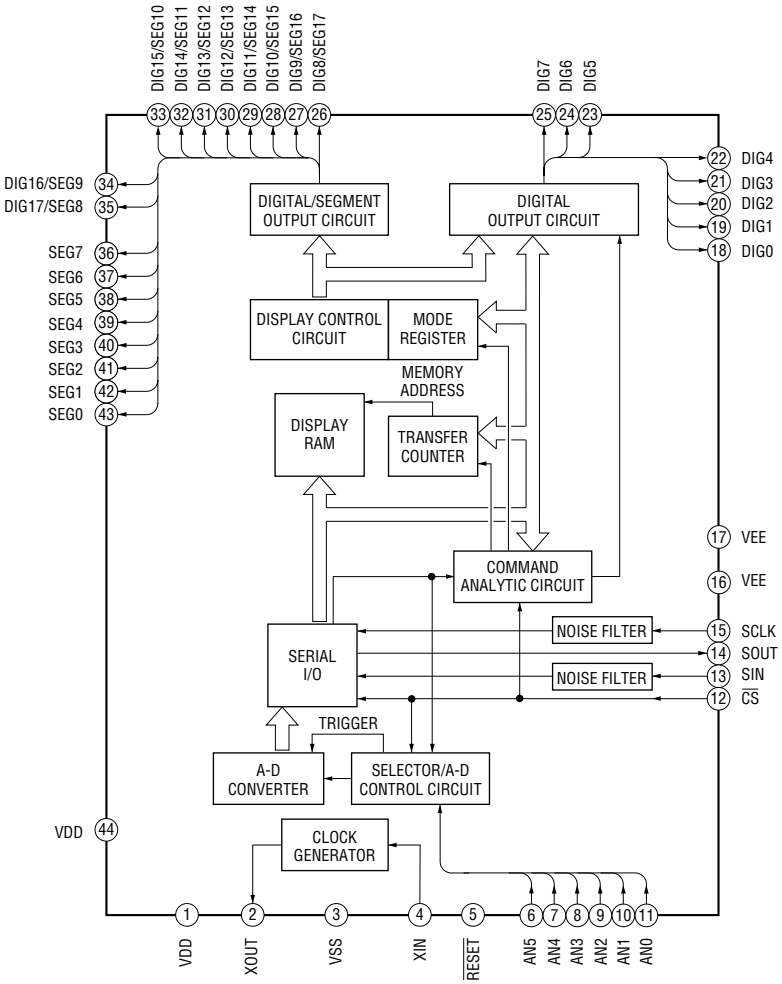
– DISP Board –

IC702 M66310FP



– JOG Board –

IC704 M35500BGP



8-20. IC PIN FUNCTION DESCRIPTION

- **BD BOARD IC101 CXD2587Q (DIGITAL SIGNAL PROCESSOR, DIGITAL SERVO PROCESSOR, DIGITAL FILTER, D/A CONVERTER)**

Pin No.	Pin Name	I/O	Description
1	SQSO	O	Subcode Q data output to the system controller (IC501)
2	SQCK	I	Subcode Q data reading clock signal input from the system controller (IC501)
3	$\overline{\text{XRST}}$	I	System reset signal input from the system controller (IC501) "L": reset
4	SYSM	I	Analog line muting on/off control signal input from the system controller (IC501) "H": line muting on
5	DATA	I	Command serial data input from the system controller (IC501)
6	XLAT	I	Command latch pulse input from the system controller (IC501)
7	CLOK	I	Command serial data transfer clock signal input from the system controller (IC501)
8	SENS	O	Internal status monitor output to the system controller (IC501)
9	SCLK	I	SENSE serial data reading clock input from the system controller (IC501)
10	VDD	—	Power supply terminal (+5V) (digital system)
11	ATSK	I/O	Input/output terminal for anti-shock (fixed at "L")
12	SPOA	I	Microcomputer escape interface input A terminal Not used (open)
13	SPOB	I	Microcomputer escape interface input B terminal Not used (open)
14	XLON	O	Microcomputer escape interface output to the BA6392FP (IC102)
15	WFCK	O	WFCK output terminal Not used (open)
16	XUGF	O	Not used (open)
17	XPCK	O	Not used (open)
18	GFS	O	Not used (open)
19	C2PO	O	Not used (open)
20	SCOR	O	Subcode sync (S0+S1) detection signal output to the system controller (IC501)
21	COUT	I/O	Numbers of track counted signal input/output terminal Not used (open)
22	MIRR	I/O	Mirror signal input/output terminal Not used (open)
23	DFCT	I/O	Defect signal input/output terminal Not used (open)
24	FOK	I/O	Focus OK input/output terminal Not used (open)
25	LOCK	I/O	GFS is sampled by 460 Hz "H" when GFS is "H" Not used (open)
26	MDP	O	Spindle motor (M101) servo drive signal output to the BA6392FP (IC102)
27	SSTP	I	Limit in detect switch (S101) input terminal
28	SFDR	O	Sled servo drive PWM signal (+) output to the BA6392FP (IC102)
29	SRDR	O	Sled servo drive PWM signal (–) output to the BA6392FP (IC102)
30	TFDR	O	Tracking servo drive PWM signal (+) output to the BA6392FP (IC102)
31	TRDR	O	Tracking servo drive PWM signal (–) output to the BA6392FP (IC102)
32	FFDR	O	Focus servo drive PWM signal (+) output to the BA6392FP (IC102)
33	FRDR	O	Focus servo drive PWM signal (–) output to the BA6392FP (IC102)
34	VSS	—	Ground terminal (digital system)
35	TEST	I	Input terminal for the test (fixed at "L")
36	TES1	I	Input terminal for the test (fixed at "L")
37	XTSL	I	Input terminal for the system clock frequency setting "L": 45.1584 MHz, "H": 22.5792 MHz (fixed at "L" in this set)
38	VC	I	Middle point voltage (+2.5V) input from the CXA2568M (IC103)
39	FE	I	Focus error signal input from the CXA2568M (IC103)
40	SE	I	Sled error signal input from the CXA2568M (IC103)
41	TE	I	Tracking error signal input from the CXA2568M (IC103)
42	CE	I	Command chip enable signal input from the CXA2568M (IC103)
43	RFDC	I	RF signal input from the CXA2568M (IC103)

Pin No.	Pin Name	I/O	Description
44	ADIO	O	Monitor output of the A/D converter input signal Not used (open)
45	AVSS0	—	Ground terminal (digital system)
46	IGEN	I	Stabilized current input for operational amplifiers
47	AVDD0	—	Power supply terminal (+5V) (digital system)
48	ASYO	O	Playback EFM full-swing output terminal
49	ASYI	I	Playback EFM asymmetry comparator voltage input terminal
50	BIAS	I	Playback EFM asymmetry circuit constant current input terminal
51	RFAC	I	EFM signal input from the CXA2568M (IC103)
52	AVSS3	—	Ground terminal (digital system)
53	CLTV	I	Internal VCO control voltage input of the playback master PLL
54	FILO	O	Filter output for master clock of the playback master PLL
55	FILI	I	Filter input for master clock of the playback master PLL
56	PCO	O	Phase comparison output for master clock of the playback EFM master PLL
57	AVDD3	—	Power supply terminal (+5V) (digital system)
58	VSS	—	Ground terminal (digital system)
59	VDD	—	Power supply terminal (+5V) (digital system)
60	DOUT	O	Digital audio signal output to the DIGITAL OUT OPTICAL (IC901)
61	LRCK	O	L/R sampling clock signal (44.1 kHz) output to the D/A converter (IC201)
62	PCMD	O	D/A interface serial data output to the D/A converter (IC201)
63	BCK	O	Bit clock signal (2.8224 MHz) output to the D/A converter (IC201)
64	EMPH	O	De-emphasis control signal output terminal Not used (open)
65	XVDD	—	Power supply terminal (+5V) (crystal oscillator system) Not used (open)
66	XTAI	I	System clock input terminal (16.9344 MHz)
67	XTAO	O	System clock output terminal (16.9344 MHz) Not used (open)
68	XVSS	—	Ground terminal (crystal oscillator system) Not used (open)
69	AVDD1	—	Power supply terminal (+5V) (analog system)
70	AOUT1	O	L-ch analog audio signal output terminal Not used (open)
71	AIN1	I	L-ch operational amplifiers input terminal Not used (open)
72	LOUT1	O	L-ch line output terminal Not used (open)
73	AVSS1	—	Ground terminal (analog system)
74	AVSS2	—	Ground terminal (analog system)
75	LOUT2	O	R-ch line output terminal Not used (open)
76	AIN2	I	R-ch operational amplifiers input terminal Not used (open)
77	AOUT2	O	R-ch analog audio signal output terminal Not used (open)
78	AVDD2	—	Power supply terminal (+5V) (analog system)
79	RMUT	O	R-ch line muting on/off control signal output terminal Not used (open)
80	LMUT	O	L-ch line muting on/off control signal output terminal Not used (open)

- **MAIN BOARD IC501 (SYSTEM CONTROLLER)**
  M30620MC-412FP (CDP-M333ES) M30622MGA-309FP (CDP-M555ES)

Pin No.	Pin Name	I/O	Description
1	FLDATA	O	Serial data output to the fluorescent indicator tube driver (IC701) and LED driver (IC702)
2	FLCLK	O	Serial data transfer clock signal output to the fluorescent indicator tube driver (IC701) and LED driver (IC702)
3	RMIN	I	Remote control signal input from remote control receiver (IC703)
4	BUSOUT	O	Sircs remote control signal output for the CONTROL A1II (J901, 902)
5	BUSIN	I	Sircs remote control signal input for the CONTROL A1II (J901, 902)
6	LODOUT	O	Loading motor drive signal (load-out direction) output to the LA6510 (IC961)
7	LODIN	O	Loading motor drive signal (load-in direction) output to the LA6510 (IC961)
8	BYTE	I	External data bus line byte selection signal input terminal (fixed at “L”)
9	CNVSS	—	Ground terminal
10	DOOROUT	O	Door motor drive signal (door open) output to the LA6510 (IC961)
11	DOORIN	O	Door motor drive signal (door close) output to the LA6510 (IC961)
12	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator (IC931) “L”: reset For several hundreds msec. after the power supply rises, “L” is input, then it change to “H”
13	OSC1	O	Main system clock output terminal (10 MHz)
14	VSS	—	Ground terminal
15	OSC2	I	Main system clock input terminal (10 MHz)
16	VCC	—	Power supply terminal (+5V)
17	PULL UP	I	Non maskarable interrupt input terminal (fixed at “L”)
18	AC IN	I	Power monitor input terminal
19	KBCIN	I	Serial data transfer clock signal input from the KEYBOARD (J821)
20	SCOR	I	Subcode sync (S0+S1) detection signal input from the CXD2587Q (IC101)
21	KBDOUT	O	Serial data output from the KEYBOARD (J821)
22	KBDIN	I	Serial data input from the KEYBOARD (J821)
23	KBCOUT	O	Serial data transfer clock signal output from the KEYBOARD (J821)
24	RELAY	O	Relay drive signal output for the power on/off control “H”: relay on
25	LPH	O	Laser power control signal output to the CXA2568M (IC103) on the CD block
26	TBLR	O	Table motor drive signal (clockwise) output to the LA6510 (IC941)
27	XLT	O	Command latch pulse output to the CXD2587Q (IC101)
28	TBLL	O	Table motor drive signal (counterclockwise) output to the LA6510 (IC941)
29	SMUTE	O	Muting on/off control signal output terminal “H” active
30	$\overline{\text{ICRESET}}$	O	System reset signal output to the CXD2587Q (IC101) and BA6392FP (IC102) on the CD block, fluorescent indicator tube driver (IC701) and LED driver (IC702) “L”: reset
31	DATA	O	Command serial data output to the CXD2587Q (IC101), D/A converter (IC201) and on screen display controller (IC802)
32	NC	O	Not used (open)
33	CLK	O	Command serial data transfer clock signal output to the CXD2587Q (IC101), D/A converter (IC201) and on screen display controller (IC802)
34	AMUTE	O	Analog line muting on/off control signal output to the CXD2587Q (IC101) “H”: line muting on
35	NC	O	Not used (open)
36	SUBQ	I	Subcode Q data input from the CXD2587Q (IC101)
37	SQCK	O	SENSE serial data reading clock and subcode Q data reading clock signal output to the CXD2587Q (IC101)
38	SENS	I	Internal status monitor input from the CXD2587Q (IC101)
39	TJOGB	I	Jog dial pulse input from the rotary encoder (RE702 ⏮ AMS ⏭) (B phase input)

Pin No.	Pin Name	I/O	Description
40	TJOGA	I	Jog dial pulse input from the rotary encoder (RE702 I◀◀ AMS ▶▶I) (A phase input)
41	TRE	I	OSD busy signal input from the on screen display controller (IC802) Used for the CDP-M555ES only
42	SEL ES	I	Setting terminal for the model "H": ES model, "L": HiFi model (fixed at "H")
43	JOGA	I	Jog dial pulse input from the rotary encoder (RE701 DISC/CHARACTER) (A phase input)
44	OE	O	Not used (open)
45	NC	O	Not used (open)
46	$\overline{WE}$	O	Data write enable signal output to the static RAM (IC504) "L" active
47	PRGLT	O	Serial data latch pulse signal output to the D/A converter (IC201)
48	OSDLT	O	OSD latch pulse signal output to the on screen display controller (IC802) Used for the CDP-M555ES only
49	CE	O	Chip enable signal output to the static RAM (IC504) "H" active
50	JOGB	I	Jog dial pulse input from the rotary encoder (RE701 DISC/CHARACTER) (B phase input)
51	LED	O	LED drive signal output of the inside illumination indicator (D801) "L": LED on
52	SIRCUS	O	Microcomputer 455kHz enable signal output to the keyboard control (IC502) Used for the CDP-M555ES only
53	RST	O	Reset signal output to the keyboard control (IC502) Used for the CDP-M555ES only
54	CE	O	Microcomputer chip enable signal output to the keyboard control (IC502) Used for the CDP-M555ES only
55	NC	O	Not used (open)
56 to 61	A6, A7, A12, A14, A5, A4	O	Address signal output to the static RAM (IC504)
62	VCC	—	Power supply terminal (+5V)
63	A3	O	Address signal output to the static RAM (IC504)
64	VCC	—	Power supply terminal (+5V)
65 to 72	A2 to A0, A11 to A8, A13	O	Address signal output to the static RAM (IC504)
73	NTSC/PAL	I	Setting terminal for the NTSC/PAL "H": NTSC (fixed at "H")
74 to 77	TSENS4 to TSENS1	I	Table position sensor (IC81 to IC84) input terminal
78	DSENS OUT	O	Disc in detect sensor test output terminal
79	H-H OUT	O	Disc in detect sensor test output terminal
80	LED LATCH	O	Serial data latch pulse output to the LED driver (IC702)
81 to 88	D7 to D3, D0 to D2	I/O	Two-way data bus with the static RAM (IC504)
89	DOOR SW	I	Door open/close switch (SW83, SW84) input (A/D input) "H": open
90	ADJ/AFADJ	I	Setting terminal for the test mode
91	DSENS	I	Disc in detect sensor (D81, Q81) input (A/D input)
92	LDSW	I	Loading detect switch (S621) input (A/D input)
93	STANDBY-LED	O	LED drive signal output of the STANDBY indicator (D710) "H": LED on (standby mode)
94	KEY	I	Key input terminal (A/D input) SCROLL, REPEAT, PROGRAM, SHUFFLE, CONTINUE, I/⏻, ▷, TIMER keys input (S761 to 768)
95	FLT2	O	Serial data latch pulse output to the fluorescent indicator tube driver (IC704)
96	AVSS	—	Ground terminal
97	FLT1	O	Serial data latch pulse output to the fluorescent indicator tube driver (IC701)
98	VREF	I	Reference voltage (+5V) input terminal (for A/D converter)
99	AVCC	—	Power supply terminal (+5V) (analog system)
100	DATAIN	I	Serial data input from the fluorescent indicator tube driver (IC704)

• MAIN BOARD IC802 MB90096PF-G-203-BND (ON SCREEN DISPLAY CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	CPOUT	O	Horizontal sync phase comparison result output terminal Not used (open)
2	AVSS1	—	Ground terminal (for internal VCO)
3	VCOIN	I	Internal VCO voltage input terminal Not used (fixed at “L”)
4	AVSS2	—	Ground terminal (for internal VCO)
5	$\overline{\text{RESET}}$	I	System reset signal input from the system controller (IC501) “L”: reset For several hundreds msec. after the power supply rises, “L” is input, then it changes to “H”
6	TEST	I	Input terminal for the test Not used (fixed at “H”)
7	VSS	—	Ground terminal
8	DOCKI	I	Dot clock signal input from the sync signal generator (IC804)
9	DOCKO	O	Dot clock signal output terminal Not used (open)
10	FH	O	Output terminal of horizontal sync signal generated in PLL circuit Not used (open)
11	EVEN	I	Field control signal input the sync signal generator (IC804)
12	HSYNC	I	Horizontal sync signal input from the sync signal generator (IC804) Based in this signal period, dot clock signal is generated Active level is programmable
13	VSYNC	I	Vertical sync signal input from the sync signal generator (IC804) Active level is programmable
14	DISP	I	Display outputs (ROUT, GOUT, BOUT, IOUT, VOB1, VOB2) control signal input from the sync signal generator (IC804)
15	VOB2	O	Semi-transparent period output terminal Active level is programmable Not used (open)
16	VOB1	O	OSD display period output terminal Active level is programmable Not used (open)
17	IOUT (C3)	O	Color signal (I) output terminal Active level is programmable
18	GOUT (C2)	O	Color signal (G) output terminal Active level is programmable
19	ROUT (C1)	O	Color signal (R) output terminal Active level is programmable
20	BOUT (C0)	O	Color signal (B) output terminal Active level is programmable
21	V3V	—	Coupling capacitor connection terminal
22	VCC	—	Power supply terminal (+5V)
23	TRE	O	Output of signal indicating that the command is being transferred to system controller (IC501) and the fill operation is under way “H” active
24	SCLK	I	Serial data transfer clock signal input from the system controller (IC501)
25	SIN	I	Serial data input from the system controller (IC501)
26	$\overline{\text{CS}}$	I	Chip select signal input from the system controller (IC501) “L” active
27	AVCC	—	Power supply terminal (+5V) (for internal VCO)
28	AV3V	—	Coupling capacitor connection terminal

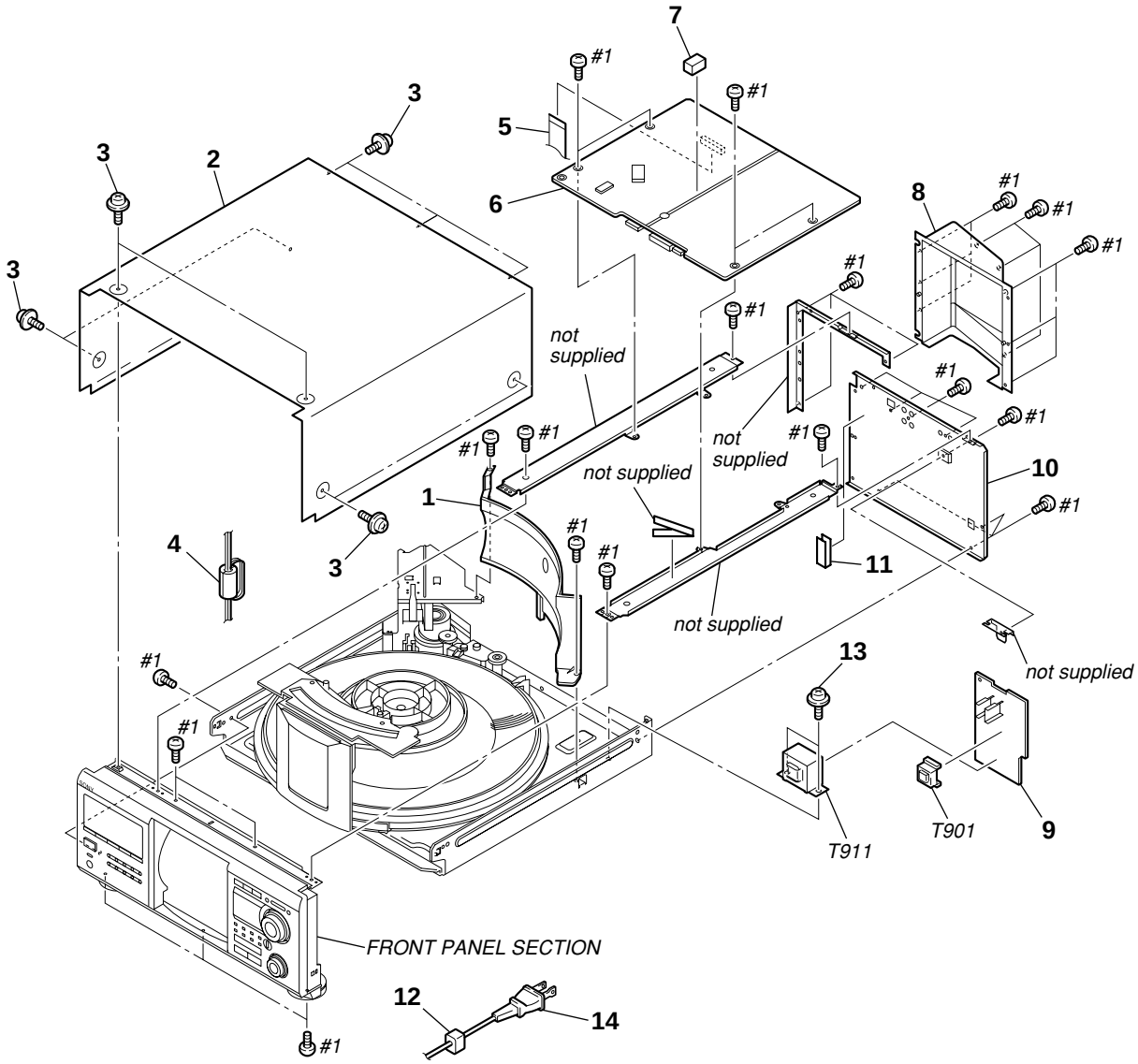
SECTION 9
EXPLODED VIEWS

NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Abbreviation
  CND : Canadian model
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of the electrical parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

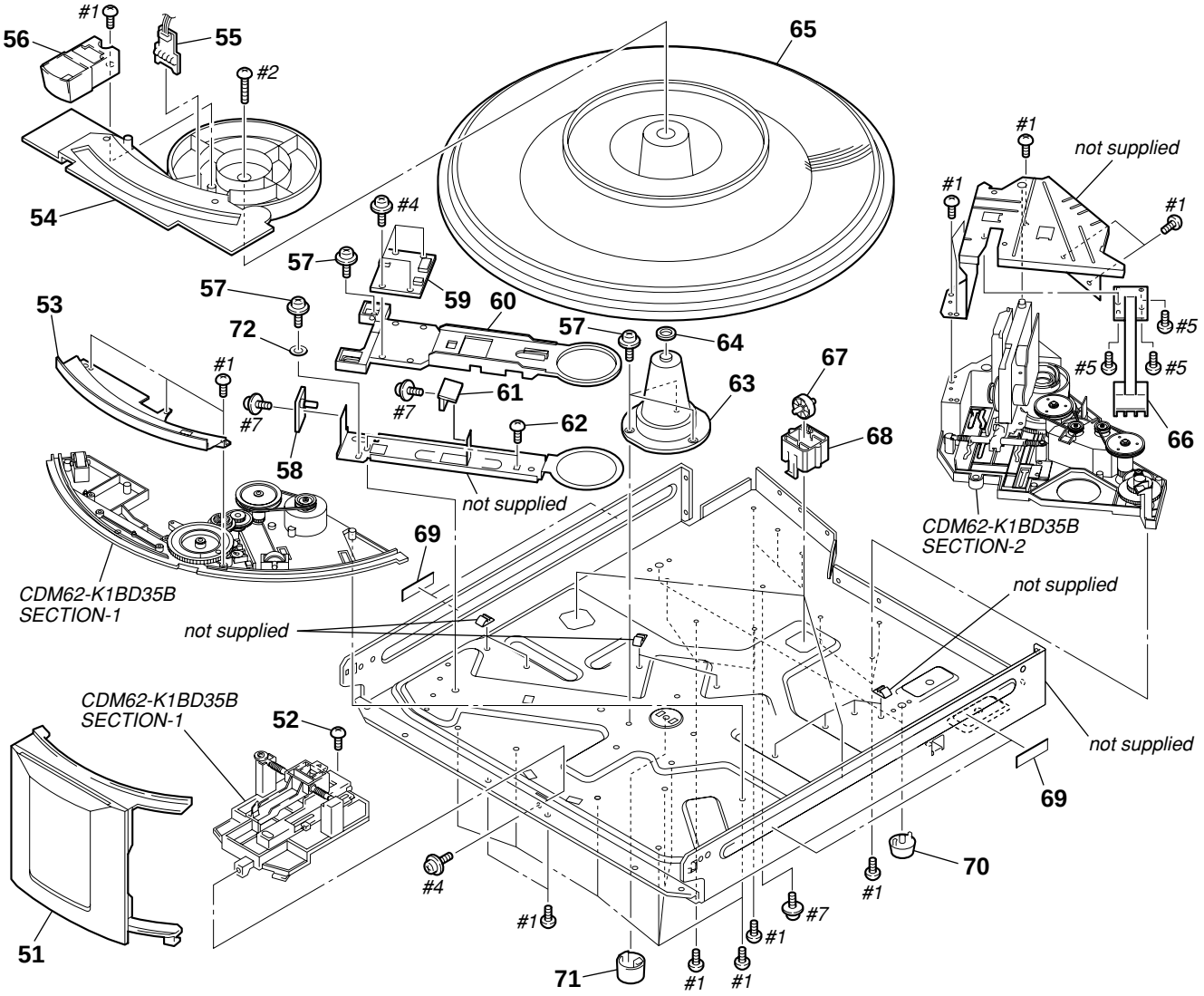
Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

(1) COVER SECTION



Ref. No.	Part No.	Description	Remark
1	4-226-841-01	COVER (PT)	
2	X-4952-311-2	COVER (ES) ASSY	
3	4-210-291-01	SCREW (CASE 3 TP2)	
4	1-500-386-11	FILTER, CLAMP (FERRITE CORE)	
5	1-792-466-11	WIRE (FLAT TYPE) (23 CORE)	
6	A-4725-079-A	MAIN BOARD, COMPLETE (M333ES)	
6	A-4725-083-A	MAIN BOARD, COMPLETE (M555ES)	
7	4-985-553-11	CUSHION	
8	4-226-876-01	COVER (CDM)	
9	A-4725-078-A	TRANS BOARD, COMPLETE	
10	4-227-531-01	PANEL, BACK (M333ES: US)	
10	4-227-531-11	PANEL, BACK (M333ES: CND)	
10	4-227-531-21	PANEL, BACK (M555ES: US)	
10	4-227-531-31	PANEL, BACK (M555ES: CND)	
11	3-383-699-01	CLAMP (EDGE)	
* 12	3-703-244-00	BUSHING (2104), CORD	
13	3-703-249-01	SCREW, S TIGHT, +PTTWH 3X6	
⚠14	1-783-531-41	CORD, POWER	
⚠T901	1-433-666-11	TRANSFORMER, POWER	
⚠T911	1-435-327-11	TRANSFORMER, POWER	

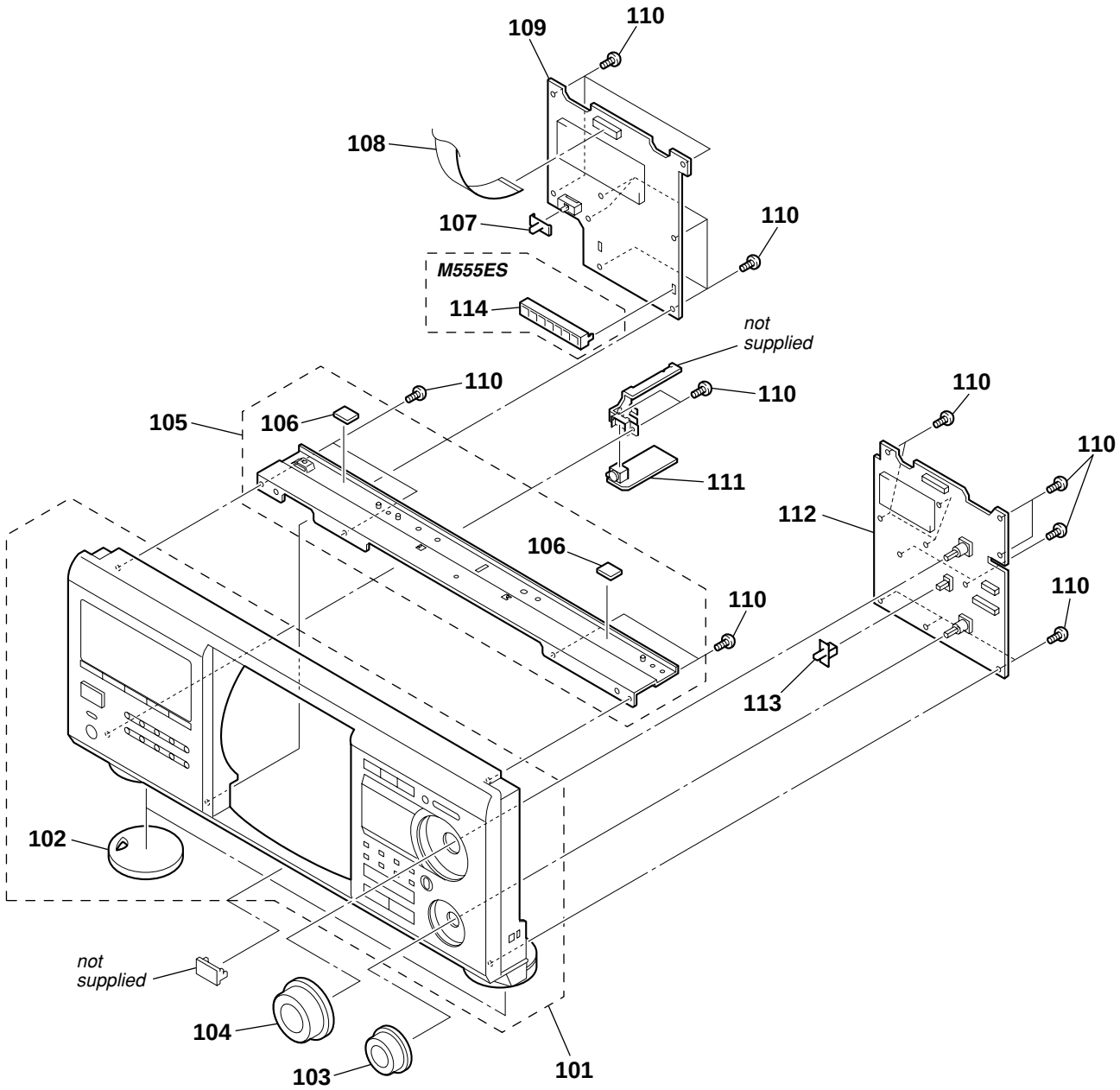
(2) CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
51	X-4952-747-1	DOOR ASSY (M333ES)	
51	X-4952-751-1	DOOR ASSY (M555ES)	
52	3-356-601-11	SCREW, STEP	
53	4-226-834-01	COVER (TABLE)	
54	4-226-833-01	GUIDE (DOOR)	
55	1-676-840-11	LED BOARD	
56	4-215-968-01	WINDOW (INTERNAL ILLUMINATION)	
57	3-703-249-01	SCREW, S TIGHT, +PTTWH 3X6	
58	1-676-834-11	D. SENS (OUT) BOARD	
59	1-676-828-11	T. SENS BOARD	
60	4-225-873-01	HOLDER (TABLE SENSOR 400)	
61	1-676-833-11	D. SENS (IN) BOARD	

Ref. No.	Part No.	Description	Remark
62	4-216-096-01	SCREW (T1), STEP	
63	4-216-089-01	SHAFT (CENTER)	
64	3-701-447-21	WASHER, 10	
65	X-4952-809-1	TABLE (400ES) ASSY	
66	4-216-088-02	GUIDE (DISC)	
67	4-216-093-01	ROLLER	
68	4-216-092-02	HOLDER (ROLLER)	
* 69	3-378-400-01	CUSHION, SARANET	
70	4-219-325-11	CUSHION (FOOT-L)	
71	4-931-169-01	FOOT	
72	3-701-441-21	WASHER	

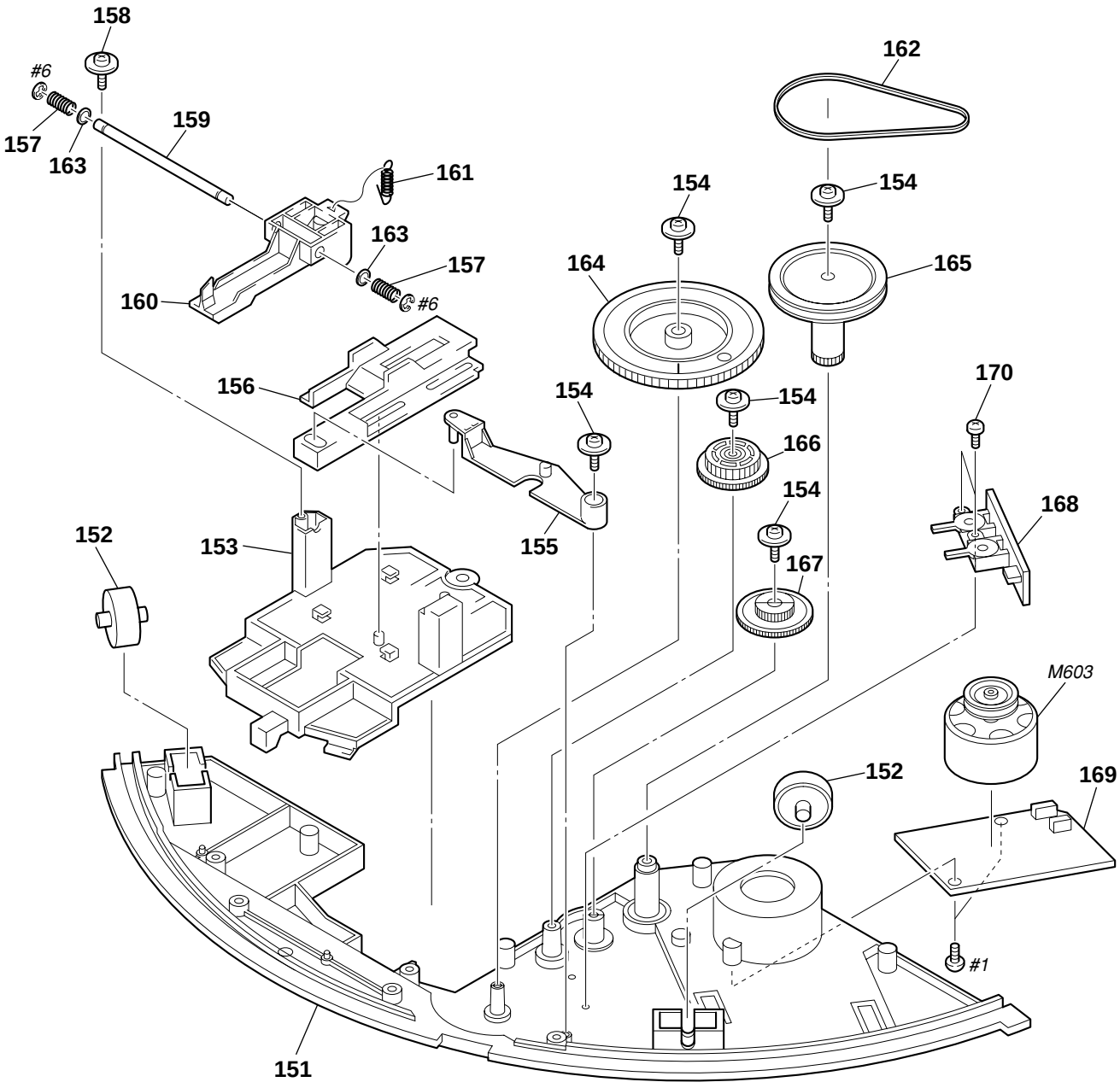
(3) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
101	X-4952-770-2	PANEL ASSY, FRONT (M333ES)	
101	X-4952-771-2	PANEL ASSY, FRONT (M555ES)	
102	4-219-325-01	CUSHION (FOOT-L)	
103	4-226-847-01	KNOB (AMS)	
104	4-226-846-01	KNOB (DISC)	
105	X-4952-642-1	BRACKET (CASE) ASSY	
106	4-985-553-21	CUSHION	
107	3-917-216-21	KNOB (TIMER)	
108	1-792-465-11	WIRE (FLAT TYPE) (15 CORE)	

Ref. No.	Part No.	Description	Remark
109	A-4725-076-A	DISP BOARD, COMPLETE (M333ES)	
109	A-4725-081-A	DISP BOARD, COMPLETE (M555ES)	
110	4-951-620-01	SCREW (2.6X8), +BVTP	
111	1-676-832-11	KEY BOARD	
112	A-4725-075-A	JOG BOARD, COMPLETE (M333ES)	
112	A-4725-080-A	JOG BOARD, COMPLETE (M555ES)	
113	4-217-639-11	KNOB (SLIDE)	
114	4-215-969-01	HOLDER (LED. RM) (M555ES)	

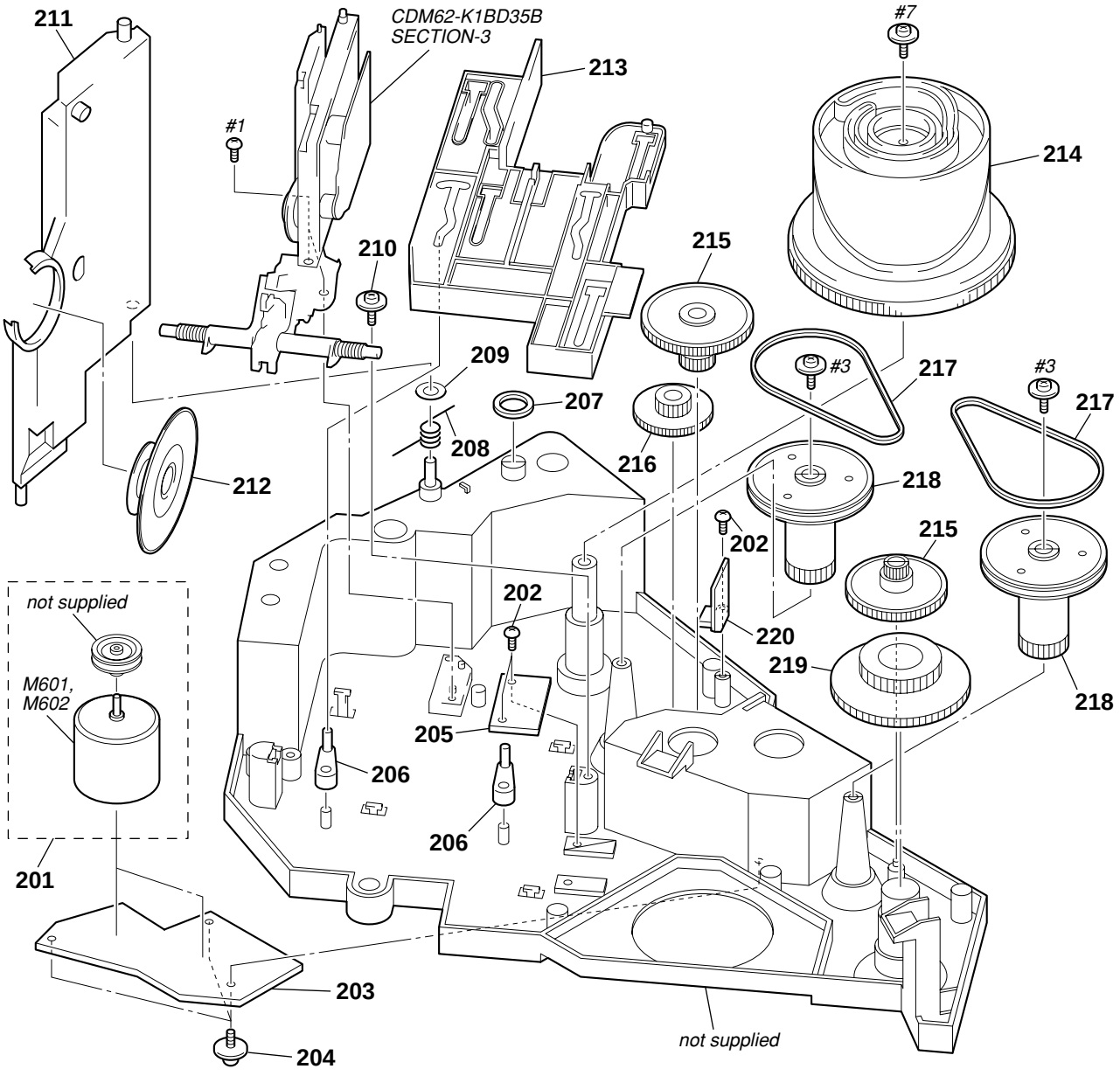
(4) MECHANISM SECTION-1 (CDM62-K1BD35B)



Ref. No.	Part No.	Description	Remark
151	4-226-827-02	BASE (DOOR DRIVING)	
152	4-216-093-01	ROLLER	
153	4-216-100-01	HOLDER (POP-UP)	
154	4-933-134-11	SCREW (+PTPWH M2.6X8)	
155	4-226-832-01	LEVER (PU JOINT)	
156	4-216-099-01	SLIDER (POP-UP)	
157	4-216-103-01	SPRING (POP-UP), COMPRESSION	
158	4-998-716-01	SCREW, BU FITTING	
159	4-216-102-01	SHAFT (POP-UP FULCRUM)	
160	4-216-098-01	LEVER (POP-UP)	
161	4-216-104-01	SPRING (POP-UP), TENSION	

Ref. No.	Part No.	Description	Remark
162	4-219-326-01	BELT (DIA. 42X1.2)	
163	3-701-441-21	WASHER	
164	4-226-828-02	GEAR (CAM)	
165	4-226-829-01	GEAR (PULLEY)	
166	4-226-831-01	GEAR (B)	
167	4-226-830-01	GEAR (A)	
168	1-676-838-11	DOOR SW BOARD	
169	1-676-839-11	D. MOTOR BOARD	
170	4-951-620-01	SCREW (2.6X8), +BVTP	
M603	1-541-632-11	MOTOR, DC (DOOR)	

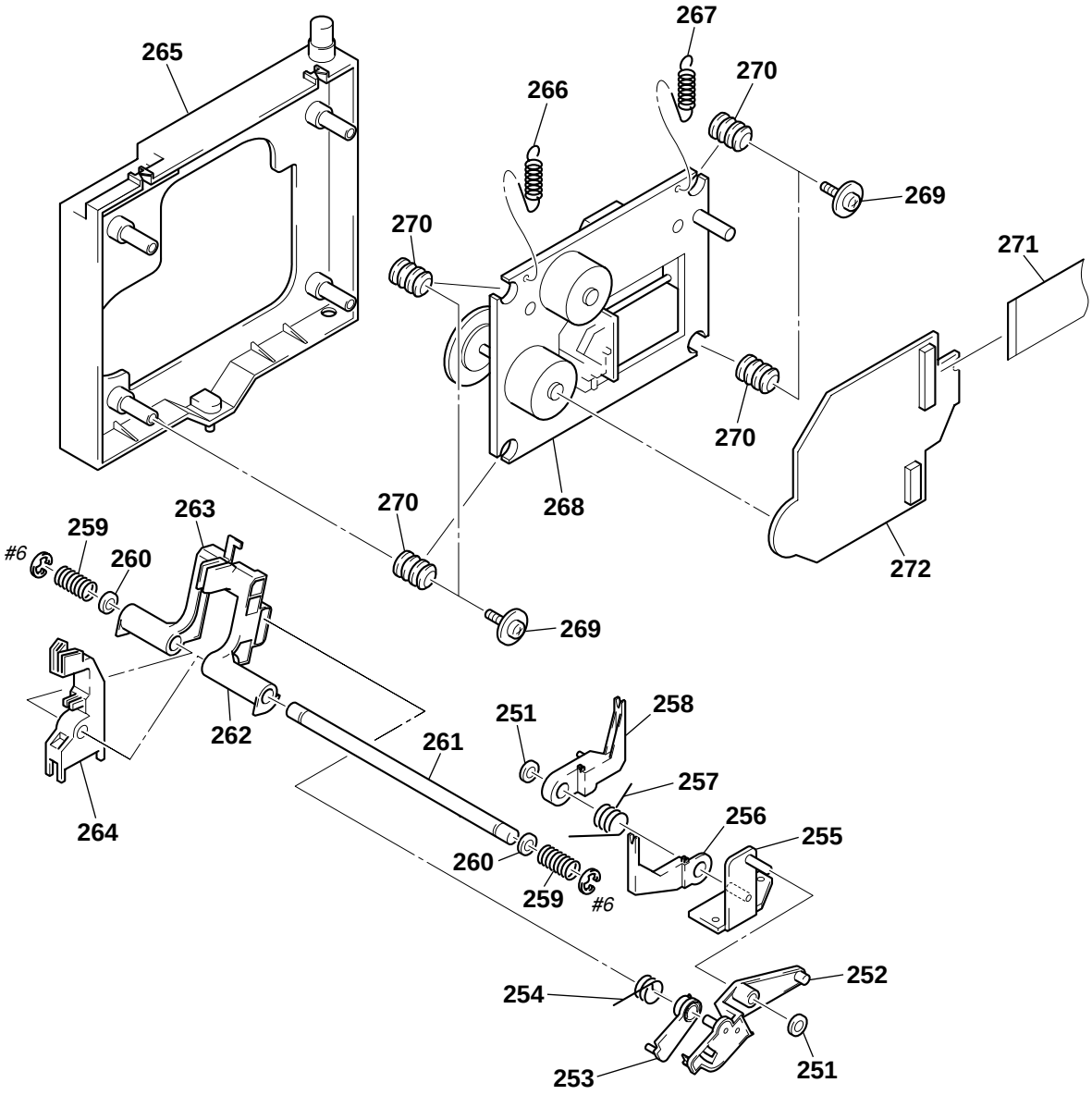
(5) MECHANISM SECTION-2 (CDM62-K1BD35B)



Ref. No.	Part No.	Description	Remark
201	A-4672-895-A	MOTOR (400) ASSY	
202	4-951-620-01	SCREW (2.6X8), +BVTP	
203	1-676-837-11	L. T. MOTOR BOARD	
204	4-933-134-11	SCREW (+PTPWH M2.6X8)	
205	1-676-835-11	LOCK SW BOARD	
206	X-4952-503-1	LEVER (FULCRUM 400) ASSY	
207	3-701-446-21	WASHER, 8	
208	4-216-081-01	SPRING (MG), TORSION	
209	3-701-441-21	WASHER	
210	4-998-716-01	SCREW, BU FITTING	
211	4-216-082-01	HOLDER (MAGNET), TORSION	

Ref. No.	Part No.	Description	Remark
212	A-4672-768-A	MAGNET ASSY	
213	4-225-865-01	SLIDER (400)	
214	A-4672-676-B	CAM ASSY	
215	4-216-058-01	GEAR (CENTER)	
216	4-216-057-01	GEAR (CENTER 2)	
217	4-225-876-01	BELT (400)	
218	4-225-870-01	PULLEY (400)	
219	4-225-869-01	GEAR (TABLE 400)	
220	1-676-836-11	LOADING SW BOARD	
M601	1-541-309-11	MOTOR, L (RF-370C) (TABLE)	
M602	1-541-309-11	MOTOR, L (RF-370C) (LOADING)	

(6) MECHANISM SECTION-3 (CDM62-K1BD35B)



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
251	3-325-697-21	WASHER	
252	4-216-078-01	LEVER (LOADING)	
253	4-216-079-02	LIMITTER (LEVER)	
254	4-216-080-01	SPRING (LIMITTER), TORSION	
255	X-4950-900-1	BRACKET (LEVER) ASSY	
256	4-225-871-01	HOLDER (F400)	
257	4-216-077-01	SPRING (HOLDER FR), TORSION	
258	4-216-076-01	HOLDER (R)	
259	4-216-067-01	SPRING (CLAMP), COMPRESSION	
260	3-701-441-21	WASHER	
261	4-225-868-01	SHAFT (CLAMP 400)	
262	X-4952-502-1	HOLDER (DISC R400) ASSY	
263	X-4952-501-1	HOLDER (DISC L400) ASSY	
264	X-4952-499-1	LEVER (LOCK 400) ASSY	
265	X-4950-901-5	HOLDER ASSY, BU	
266	4-216-085-01	SPRING (F-1), TENSION	
267	4-216-086-01	SPRING (F-2), TENSION	
⚠268	8-820-026-03	OPTICAL PICK-UP KSM-213BFN/C2NP	
269	4-957-577-01	SCREW PTPWH (2.6X8) (DIA. 10)	
* 270	4-992-054-01	RUBBER, VIBRATION PROOF	
271	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
272	A-4724-642-A	BD BOARD, COMPLETE	

BD

SECTION 10
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	A-4724-642-A	BD BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C101	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C102	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C103	1-163-005-11	CERAMIC CHIP	470PF	10%	50V
C104	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C106	1-164-346-11	CERAMIC CHIP	1uF		16V
C107	1-164-346-11	CERAMIC CHIP	1uF		16V
C108	1-163-035-00	CERAMIC CHIP	0.047uF		50V
C109	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C110	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C111	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C115	1-126-607-11	ELECT CHIP	47uF	20%	4V
C116	1-126-607-11	ELECT CHIP	47uF	20%	4V
C117	1-126-209-11	ELECT CHIP	100uF	20%	4V
C118	1-163-275-11	CERAMIC CHIP	0.001uF	5%	50V
C119	1-163-231-11	CERAMIC CHIP	15PF	5%	50V
C121	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C122	1-135-214-21	TANTALUM CHIP	4.7uF	20%	10V
C123	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C124	1-164-005-11	CERAMIC CHIP	0.47uF		25V
C125	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C126	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C127	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C130	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C131	1-135-216-11	TANTALUM CHIP	10uF	20%	10V
C140	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C141	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C151	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C153	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C154	1-164-336-11	CERAMIC CHIP	0.33uF		25V
C156	1-163-237-11	CERAMIC CHIP	27PF	5%	50V
C157	1-163-145-00	CERAMIC CHIP	0.0015uF	5%	50V
C159	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C164	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C165	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C166	1-163-038-00	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
CN101	1-770-072-11	CONNECTOR, (LIF (NON-ZIF)) FFC23P			
CN102	1-777-937-11	CONNECTOR, FFC/FPC 16P			

Ref. No.	Part No.	Description			Remark
		< IC >			
IC101	8-752-386-85	IC CXD2587Q			
* IC102	8-759-455-91	IC BA6392FP-E2			
IC103	8-752-085-51	IC CXA2568M-T6			
		< TRANSISTOR >			
Q101	8-729-010-08	TRANSISTOR	MSB710-R		
		< RESISTOR >			
R101	1-216-077-00	RES-CHIP	15K	5%	1/10W
R102	1-216-097-00	RES-CHIP	100K	5%	1/10W
R103	1-216-077-00	RES-CHIP	15K	5%	1/10W
R104	1-216-085-00	METAL CHIP	33K	5%	1/10W
R105	1-216-097-00	RES-CHIP	100K	5%	1/10W
R106	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R107	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R108	1-216-073-00	METAL CHIP	10K	5%	1/10W
R109	1-216-121-00	RES-CHIP	1M	5%	1/10W
R110	1-216-025-00	RES-CHIP	100	5%	1/10W
R111	1-216-121-00	RES-CHIP	1M	5%	1/10W
R113	1-216-121-00	RES-CHIP	1M	5%	1/10W
R117	1-216-049-11	RES-CHIP	1K	5%	1/10W
R123	1-216-073-00	METAL CHIP	10K	5%	1/10W
R124	1-216-097-00	RES-CHIP	100K	5%	1/10W
R131	1-216-037-00	METAL CHIP	330	5%	1/10W
R135	1-216-295-00	SHORT	0		
R136	1-216-295-00	SHORT	0		
R137	1-216-295-00	SHORT	0		
R138	1-216-295-00	SHORT	0		
R143	1-216-103-00	METAL CHIP	180K	5%	1/10W
R144	1-216-103-00	METAL CHIP	180K	5%	1/10W
R147	1-216-081-00	METAL CHIP	22K	5%	1/10W
R148	1-216-001-00	METAL CHIP	10	5%	1/10W
R149	1-216-003-11	RES-CHIP	12	5%	1/10W
R158	1-216-111-00	METAL CHIP	390K	5%	1/10W
R159	1-216-101-00	METAL CHIP	150K	5%	1/10W
R161	1-216-308-00	METAL CHIP	4.7	5%	1/10W
R162	1-216-101-00	METAL CHIP	150K	5%	1/10W
R615	1-216-049-11	RES-CHIP	1K	5%	1/10W
R616	1-216-049-11	RES-CHIP	1K	5%	1/10W
R617	1-216-049-11	RES-CHIP	1K	5%	1/10W
R618	1-216-049-11	RES-CHIP	1K	5%	1/10W

Ref. No.	Part No.	Description			Remark
		< SWITCH >			
S101	1-572-085-11	SWITCH, LEAF (LIMIT IN)			
**********					
	A-4725-076-A	DISP BOARD, COMPLETE (M333ES)			
	A-4725-081-A	DISP BOARD, COMPLETE (M555ES)			
		**********			
	4-982-811-21	HOLDER (FL)			
		< CAPACITOR >			
C591	1-126-924-11	ELECT	330uF	20%	6.3V (M555ES)
C592	1-162-306-11	CERAMIC	0.01uF	20%	16V (M555ES)
C593	1-126-924-11	ELECT	330uF	20%	6.3V (M555ES)
C594	1-162-306-11	CERAMIC	0.01uF	20%	16V (M555ES)
C595	1-126-924-11	ELECT	330uF	20%	6.3V (M555ES)
C596	1-162-306-11	CERAMIC	0.01uF	20%	16V (M555ES)
C781	1-104-665-11	ELECT	100uF	20%	10V
C782	1-104-665-11	ELECT	100uF	20%	10V
C784	1-162-282-31	CERAMIC	100PF	10%	50V
C785	1-162-282-31	CERAMIC	100PF	10%	50V
C786	1-162-282-31	CERAMIC	100PF	10%	50V
C787	1-162-306-11	CERAMIC	0.01uF	20%	16V
C788	1-162-215-31	CERAMIC	47PF	5%	50V
C789	1-164-159-11	CERAMIC	0.1uF		50V
C791	1-162-288-31	CERAMIC	330PF	10%	50V
C792	1-162-294-31	CERAMIC	0.001uF	10%	50V
C793	1-164-159-11	CERAMIC	0.1uF		50V
		< CONNECTOR >			
CNP502	1-784-776-11	CONNECTOR, FFC 15P			
		< DIODE >			
D591	8-719-059-14	LED SID313BP-TP19 (ILLUMINATION)			(M555ES)
D592	8-719-059-14	LED SID313BP-TP19 (ILLUMINATION)			(M555ES)
D593	8-719-911-19	DIODE 1SS119-25 (M555ES)			
D594	8-719-059-14	LED SID313BP-TP19 (ILLUMINATION)			(M555ES)
D595	8-719-911-19	DIODE 1SS119-25 (M555)			
D596	8-719-059-14	LED SID313BP-TP19 (ILLUMINATION)			(M555ES)
D597	8-719-059-14	LED SID313BP-TP19 (ILLUMINATION)			(M555ES)
D598	8-719-911-19	DIODE 1SS119-25 (M555ES)			
D701	8-719-046-39	LED SEL5821A-TP15 (GROUP 1)			
D702	8-719-046-39	LED SEL5821A-TP15 (GROUP 2)			
D703	8-719-046-39	LED SEL5821A-TP15 (GROUP 3)			
D704	8-719-046-39	LED SEL5821A-TP15 (GROUP 4)			
D705	8-719-046-39	LED SEL5821A-TP15 (HIT LIST)			
D706	8-719-046-39	LED SEL5821A-TP15 (GROUP 5)			
D707	8-719-046-39	LED SEL5821A-TP15 (GROUP 6)			
D708	8-719-046-39	LED SEL5821A-TP15 (GROUP 7)			
D709	8-719-046-39	LED SEL5821A-TP15 (GROUP 8)			
D710	8-719-046-44	LED SEL5221S (STANDBY)			
		< FLUORESCENT INDICATOR TUBE >			
FL701	1-517-959-11	INDICATOR TUBE, FLUORESCENT			
		< IC >			
IC701	8-759-498-92	IC MSM9202-03GS-K			
IC702	8-759-183-47	IC M66310FP			
IC703	8-759-459-86	IC NJL64H400A			
		< TRANSISTOR >			
Q591	8-729-801-93	TRANSISTOR 2SD1387-3 (M555ES)			
Q592	8-729-801-93	TRANSISTOR 2SD1387-3 (M555ES)			
Q593	8-729-801-93	TRANSISTOR 2SD1387-3 (M555ES)			
Q701	8-729-029-66	TRANSISTOR DTC114ESA			
		< RESISTOR >			
R591	1-249-383-11	CARBON	1.5	5%	1/6W (M555ES)
R592	1-249-383-11	CARBON	1.5	5%	1/6W (M555ES)
R593	1-247-772-00	CARBON	3.6	5%	1/4W (M555ES)
R594	1-247-772-00	CARBON	3.6	5%	1/4W (M555ES)
R595	1-249-383-11	CARBON	1.5	5%	1/6W (M555ES)
R596	1-249-383-11	CARBON	1.5	5%	1/6W (M555ES)
R742	1-249-415-11	CARBON	680	5%	1/4W
R743	1-249-417-11	CARBON	1K	5%	1/4W
R744	1-249-419-11	CARBON	1.5K	5%	1/4W
R745	1-249-421-11	CARBON	2.2K	5%	1/4W
R752	1-249-415-11	CARBON	680	5%	1/4W
R753	1-249-417-11	CARBON	1K	5%	1/4W
R754	1-249-419-11	CARBON	1.5K	5%	1/4W
R755	1-249-421-11	CARBON	2.2K	5%	1/4W
R762	1-249-415-11	CARBON	680	5%	1/4W
R763	1-249-417-11	CARBON	1K	5%	1/4W
R764	1-249-419-11	CARBON	1.5K	5%	1/4W
R765	1-249-421-11	CARBON	2.2K	5%	1/4W
R766	1-247-843-11	CARBON	3.3K	5%	1/4W
R767	1-249-427-11	CARBON	6.8K	5%	1/4W
R768	1-249-431-11	CARBON	15K	5%	1/4W
R781	1-247-807-31	CARBON	100	5%	1/4W
R782	1-247-807-31	CARBON	100	5%	1/4W
R783	1-247-807-31	CARBON	100	5%	1/4W
R784	1-247-807-31	CARBON	100	5%	1/4W
R785	1-247-807-31	CARBON	100	5%	1/4W
R786	1-247-843-11	CARBON	3.3K	5%	1/4W
R787	1-249-441-11	CARBON	100K	5%	1/4W
R788	1-247-807-31	CARBON	100	5%	1/4W
R789	1-247-807-31	CARBON	100	5%	1/4W
R790	1-249-409-11	CARBON	220	5%	1/4W
R791	1-249-409-11	CARBON	220	5%	1/4W
R792	1-249-409-11	CARBON	220	5%	1/4W
R793	1-249-413-11	CARBON	470	5%	1/4W

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
S741	1-771-349-21	SWITCH, KEYBOARD (GROUP 1)	
S742	1-771-349-21	SWITCH, KEYBOARD (GROUP 2)	
S743	1-771-349-21	SWITCH, KEYBOARD (GROUP 3)	
S744	1-771-349-21	SWITCH, KEYBOARD (GROUP 4)	
S745	1-771-349-21	SWITCH, KEYBOARD (HIT LIST)	
S751	1-771-349-21	SWITCH, KEYBOARD (GROUP 5)	
S752	1-771-349-21	SWITCH, KEYBOARD (GROUP 6)	
S753	1-771-349-21	SWITCH, KEYBOARD (GROUP 7)	
S754	1-771-349-21	SWITCH, KEYBOARD (GROUP 8)	
S755	1-771-349-21	SWITCH, KEYBOARD (GROUP FILE)	
S761	1-771-349-21	SWITCH, KEYBOARD (SCROLL)	
S762	1-771-349-21	SWITCH, KEYBOARD (REPEAT)	
S763	1-771-349-21	SWITCH, KEYBOARD (PROGRAM)	
S764	1-771-349-21	SWITCH, KEYBOARD (SHUFFLE)	
S765	1-771-349-21	SWITCH, KEYBOARD (CONTINUE)	
S766	1-771-349-21	SWITCH, KEYBOARD (I/⏻)	
S768	1-570-157-51	SWITCH, SLIDE (TIMER)	
**********			
	1-676-838-11	DOOR SW BOARD	
		**********	
		< RESISTOR >	
R612	1-249-415-11	CARBON 680 5% 1/4W	
R613	1-249-417-11	CARBON 1K 5% 1/4W	
R614	1-249-419-11	CARBON 1.5K 5% 1/4W	
		< SWITCH >	
S611	1-571-300-21	SWITCH, ROTARY (DOOR OPEN/CLOSE)	
S612	1-571-300-21	SWITCH, ROTARY (POP UP)	
**********			
	1-676-839-11	D. MOTOR BOARD	
		**********	
**********			
	1-676-833-11	D. SENS (IN) BOARD	
		**********	
*	4-985-300-01	HOLDER (P-T)	
		< TRANSISTOR >	
Q81	8-729-926-31	PHOTO TRANSISTOR PT483F1S (DISC IN DETECT SENSOR)	
**********			
	1-676-834-11	D. SENS (OUT) BOARD	
		**********	
		< DIODE >	
D81	8-719-055-84	LED GL528VS1 (DISC IN DETECT SENSOR)	
**********			
	A-4725-075-A	JOG BOARD, COMPLETE (M333ES)	
	A-4725-080-A	JOG BOARD, COMPLETE (M555ES)	
		**********	
*	4-929-709-31	GUIDE (FL TUBE)	

Ref. No.	Part No.	Description	Remark
		< CAPACITOR >	
C701	1-161-494-00	CERAMIC 0.022uF 25V	
C711	1-161-494-00	CERAMIC 0.022uF 25V	
C721	1-161-494-00	CERAMIC 0.022uF 25V	
C731	1-161-494-00	CERAMIC 0.022uF 25V	
C741	1-161-494-00	CERAMIC 0.022uF 25V	
C751	1-161-494-00	CERAMIC 0.022uF 25V	
C773	1-164-159-11	CERAMIC 0.1uF 50V	
C774	1-124-584-00	ELECT 100uF 20% 10V	
C775	1-162-207-31	CERAMIC 22PF 5% 50V	
C776	1-164-159-11	CERAMIC 0.1uF 50V	
C777	1-162-282-31	CERAMIC 100PF 10% 50V	
C778	1-164-159-11	CERAMIC 0.1uF 50V	
		< DIODE >	
D711	8-719-046-41	LED SEL5521C-TP15 (▷)	
D712	8-719-046-39	LED SEL5821A-TP15 (▮▮)	
D715	8-719-046-41	LED SEL5521C-TP15 (EASY PLAY)	
		< FLUORESCENT INDICATOR TUBE >	
FL702	1-517-960-11	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC704	8-759-547-59	IC M35500BGP	
		< RESISTOR >	
R701	1-249-427-11	CARBON 6.8K 5% 1/4W	
R702	1-249-415-11	CARBON 680 5% 1/4W	
R703	1-249-417-11	CARBON 1K 5% 1/4W	
R704	1-249-419-11	CARBON 1.5K 5% 1/4W	
R705	1-249-421-11	CARBON 2.2K 5% 1/4W	
R706	1-247-843-11	CARBON 3.3K 5% 1/4W	
R707	1-249-427-11	CARBON 6.8K 5% 1/4W	
R711	1-249-427-11	CARBON 6.8K 5% 1/4W	
R712	1-249-415-11	CARBON 680 5% 1/4W	
R713	1-249-417-11	CARBON 1K 5% 1/4W	
R714	1-249-419-11	CARBON 1.5K 5% 1/4W	
R715	1-249-421-11	CARBON 2.2K 5% 1/4W	
R716	1-247-843-11	CARBON 3.3K 5% 1/4W	
R721	1-249-427-11	CARBON 6.8K 5% 1/4W	
R722	1-249-415-11	CARBON 680 5% 1/4W	
R723	1-249-417-11	CARBON 1K 5% 1/4W	
R724	1-249-419-11	CARBON 1.5K 5% 1/4W	
R725	1-249-421-11	CARBON 2.2K 5% 1/4W	
R726	1-247-843-11	CARBON 3.3K 5% 1/4W	
R727	1-249-427-11	CARBON 6.8K 5% 1/4W	
R731	1-249-427-11	CARBON 6.8K 5% 1/4W	
R741	1-249-427-11	CARBON 6.8K 5% 1/4W	
R751	1-249-427-11	CARBON 6.8K 5% 1/4W	
R771	1-247-807-31	CARBON 100 5% 1/4W	
R772	1-249-407-11	CARBON 150 5% 1/4W	
R773	1-249-407-11	CARBON 150 5% 1/4W	
R774	1-247-807-31	CARBON 100 5% 1/4W	
R775	1-247-807-31	CARBON 100 5% 1/4W	
R794	1-247-807-31	CARBON 100 5% 1/4W	

Ref. No.	Part No.	Description	Remark
		< ROTARY ENCODER >	
RE701	1-475-543-11	ENCODER, ROTARY (DISC CHARACTER PUSH ENTER)	
RE702	1-475-543-11	ENCODER, ROTARY (⏮ AMS ⏭ PUSH ENTER)	
		< SWITCH >	
S71	1-771-349-21	SWITCH, KEYBOARD (OPEN/CLOSE)	
S72	1-771-349-21	SWITCH, KEYBOARD (⏏)	
S73	1-771-349-21	SWITCH, KEYBOARD (EASY PLAY)	
S74	1-771-349-21	SWITCH, KEYBOARD (MENU/NO)	
S75	1-771-349-21	SWITCH, KEYBOARD (+100)	
S76	1-771-349-21	SWITCH, KEYBOARD (YES)	
S711	1-771-349-21	SWITCH, KEYBOARD (CHECK)	
S712	1-771-349-21	SWITCH, KEYBOARD (CLEAR)	
S713	1-771-349-21	SWITCH, KEYBOARD (NAME SEARCH)	
S714	1-692-537-21	SWITCH, TACTILE (WITH LIGHT) (ARTIST MODE)	
S715	1-570-855-11	SWITCH, SLIDE (FILTER)	
S721	1-692-537-11	SWITCH, TACTILE (WITH LIGHT) (MEGA CTRL)	
S722	1-771-349-21	SWITCH, KEYBOARD (NO DELAY)	
S723	1-771-349-21	SWITCH, KEYBOARD (X-FADE)	
S724	1-771-349-21	SWITCH, KEYBOARD (FADER)	
S725	1-771-349-21	SWITCH, KEYBOARD (❚❚)	
S726	1-771-349-21	SWITCH, KEYBOARD (■)	
S767	1-771-349-21	SWITCH, KEYBOARD (▷)	
**********			
	1-676-832-11	KEY BOARD **********	
		< CAPACITOR >	
C821	1-164-159-11	CERAMIC 0.1uF 50V	
C822	1-164-159-11	CERAMIC 0.1uF 50V	
C823	1-126-925-11	ELECT 470uF 20% 10V	
		< CONNECTOR >	
* CNP503	1-568-944-11	PIN, CONNECTOR 6P (M333ES)	
* CNP503	1-568-947-11	PIN, CONNECTOR 9P (M555ES)	
* CNP703	1-568-954-11	PIN, CONNECTOR 5P (M555ES)	
		< DIODE >	
D821	8-719-109-85	DIODE RD5.1ESB2	
D822	8-719-109-85	DIODE RD5.1ESB2	
D823	8-719-109-85	DIODE RD5.1ESB2	
		< CONNECTOR >	
J821	1-785-945-11	CONNECTOR, DIN (KEYBOARD)	
		< NOISE FILTER >	
L821	1-424-122-11	FILTER, NOISE	
L822	1-424-122-11	FILTER, NOISE	
L823	1-424-122-11	FILTER, NOISE	
L824	1-424-122-11	FILTER, NOISE	

Ref. No.	Part No.	Description	Remark
		< RESISTOR >	
R1	1-249-429-11	CARBON 10K 5% 1/4W (M333ES)	
**********			
	1-676-840-11	LED BOARD **********	
*	4-976-473-01	HOLDER (LED-S)	
		< CAPACITOR >	
C801	1-164-159-11	CERAMIC 0.1uF 50V	
		< CONNECTOR >	
CNP504	1-506-481-11	PIN, CONNECTOR 2P	
		< DIODE >	
D801	8-719-072-81	LED SELU5E23C-STP15 (INSIDE ILLUMINATION)	
		< RESISTOR >	
R801	1-249-401-11	CARBON 47 5% 1/4W	
**********			
	1-676-836-11	LOADING SW BOARD **********	
		< RESISTOR >	
R622	1-249-415-11	CARBON 680 5% 1/4W	
R623	1-249-417-11	CARBON 1K 5% 1/4W	
		< SWITCH >	
S621	1-571-300-21	SWITCH, ROTARY (LOADING DETECT)	
**********			
	1-676-835-11	LOCK SW BOARD **********	
		< SWITCH >	
S622	1-771-604-11	SWITCH, DETECTION (LOADING)	
**********			
	1-676-837-11	L. T. MOTOR BOARD **********	
**********			
	A-4725-079-A	MAIN BOARD, COMPLETE (M333ES)	
	A-4725-083-A	MAIN BOARD, COMPLETE (M555ES) **********	
	7-685-871-01	SCREW +BVTT 3X6 (S)	
		< CAPACITOR/ TRIMMER >	
C201	1-163-102-00	CERAMIC CHIP 24PF 5% 50V	
C204	1-163-133-00	CERAMIC CHIP 470PF 5% 50V	
C206	1-163-038-00	CERAMIC CHIP 0.1uF 25V	
C207	1-119-941-91	ELECT 470uF 20% 6.3V	
C208	1-163-038-00	CERAMIC CHIP 0.1uF 25V	

MAIN

Ref. No.	Part No.	Description			Remark
C209	1-119-941-91	ELECT	470uF	20%	6.3V
C210	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C211	1-102-945-00	CERAMIC	8.0PF	±0.5PF	50V
C212	1-102-945-00	CERAMIC	8.0PF	±0.5PF	50V
C213	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C214	1-126-245-11	ELECT	330uF	20%	6.3V
C215	1-126-926-11	ELECT	1000uF	20%	10V
C216	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C301	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C302	1-119-941-91	ELECT	470uF	20%	6.3V
C303	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C305	1-119-941-91	ELECT	470uF	20%	6.3V
C306	1-102-947-00	CERAMIC	10PF	5%	50V
C307	1-126-795-11	ELECT	10uF	20%	50V
C308	1-126-795-11	ELECT	10uF	20%	50V
C309	1-130-485-00	MYLAR	0.015uF	5%	50V
C310	1-130-477-00	MYLAR	0.0033uF	5%	50V
C312	1-126-786-11	ELECT	47uF	20%	16V
C318	1-126-926-11	ELECT	1000uF	20%	10V
C319	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C320	1-130-483-00	MYLAR	0.01uF	5%	50V
C321	1-130-483-00	MYLAR	0.01uF	5%	50V
C323	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C324	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C325	1-104-987-11	MYLAR	0.001uF	5%	50V
C326	1-126-022-11	ELECT	47uF	20%	25V
C327	1-130-484-00	MYLAR	0.012uF	5%	50V
C331	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C332	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C340	1-126-049-11	ELECT	22uF	20%	50V
C341	1-124-282-00	ELECT	22uF	20%	25V
C342	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C352	1-126-963-11	ELECT	4.7uF	20%	50V
C354	1-126-962-11	ELECT	3.3uF	20%	50V
C401	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C402	1-119-941-91	ELECT	470uF	20%	6.3V
C403	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C404	1-128-499-11	ELECT	220uF	20%	16V
C405	1-128-499-11	ELECT	220uF	20%	16V
C406	1-102-947-00	CERAMIC	10PF	5%	50V
C407	1-126-795-11	ELECT	10uF	20%	50V
C408	1-126-795-11	ELECT	10uF	20%	50V
C409	1-130-485-00	MYLAR	0.015uF	5%	50V
C410	1-130-477-00	MYLAR	0.0033uF	5%	50V
C411	1-130-485-00	MYLAR	0.015uF	5%	50V
C412	1-126-795-11	ELECT	10uF	20%	50V
C413	1-126-795-11	ELECT	10uF	20%	50V
C415	1-126-795-11	ELECT	10uF	20%	50V
C418	1-126-926-11	ELECT	1000uF	20%	10V
C419	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C420	1-130-483-00	MYLAR	0.01uF	5%	50V
C421	1-130-483-00	MYLAR	0.01uF	5%	50V
C423	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C424	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C425	1-104-987-11	MYLAR	0.001uF	5%	50V
C426	1-126-022-11	ELECT	47uF	20%	25V
C427	1-130-484-00	MYLAR	0.012uF	5%	50V

Ref. No.	Part No.	Description			Remark
C430	1-128-499-11	ELECT	220uF	20%	16V
C431	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C432	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C435	1-128-499-11	ELECT	220uF	20%	16V
C440	1-126-049-11	ELECT	22uF	20%	50V
C441	1-124-282-00	ELECT	22uF	20%	25V
C442	1-163-133-00	CERAMIC CHIP	470PF	5%	50V
C503	1-163-033-00	CERAMIC CHIP	0.022uF		50V
C504	1-104-665-11	ELECT	100uF	20%	10V
C505	1-163-033-00	CERAMIC CHIP	0.022uF		50V
C509	1-163-033-00	CERAMIC CHIP	0.022uF		50V
C511	1-163-033-00	CERAMIC CHIP	0.022uF		50V
C512	1-163-033-00	CERAMIC CHIP	0.022uF		50V
C513	1-163-033-00	CERAMIC CHIP	0.022uF		50V
C517	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C519	1-104-665-11	ELECT	100uF	20%	10V
C520	1-110-489-11	CAPACITOR	1F		5.5V
C521	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C533	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C535	1-104-665-11	ELECT	100uF	20%	10V
C551	1-126-934-11	ELECT	220uF	20%	10V
C552	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C553	1-126-934-11	ELECT	220uF	20%	10V
C554	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C555	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C556	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C572	1-104-665-11	ELECT	100uF	20%	10V
C581	1-163-038-00	CERAMIC CHIP	0.1uF		25V (M555ES)
C582	1-104-665-11	ELECT	100uF	20%	10V (M555ES)
C591	1-126-382-11	ELECT	100uF	20%	10V
C592	1-104-665-11	ELECT	100uF	20%	10V (US)
C594	1-126-382-11	ELECT	100uF	20%	10V
C801	1-136-165-00	MYLAR	0.1uF	5%	50V (M555ES)
C802	1-136-165-00	MYLAR	0.1uF	5%	50V (M555ES)
C803	1-136-165-00	MYLAR	0.1uF	5%	50V (M555ES)
C804	1-102-942-00	CERAMIC	5.0PF	±0.5PF	50V (M555ES)
C805	1-163-038-00	CERAMIC CHIP	0.1uF		25V (M555ES)
C806	1-104-665-11	ELECT	100uF	20%	10V (M555ES)
C807	1-163-243-11	CERAMIC CHIP	47PF	5%	50V (M555ES)
C811	1-104-665-11	ELECT	100uF	20%	10V (M555ES)
C812	1-163-038-00	CERAMIC CHIP	0.1uF		25V (M555ES)
C814	1-163-237-11	CERAMIC CHIP	27PF	5%	50V (M555ES)
C815	1-163-033-91	CERAMIC CHIP	0.022uF		50V (M555ES)
C817	1-126-926-11	ELECT	1000uF	20%	10V (M555ES)
C818	1-104-665-11	ELECT	100uF	20%	10V (M555ES)

Ref. No.	Part No.	Description			Remark
C819	1-163-038-00	CERAMIC CHIP	0.1uF		25V (M555ES)
C820	1-163-038-00	CERAMIC CHIP	0.1uF		25V (M555ES)
C822	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V (M555ES)
C823	1-163-038-00	CERAMIC CHIP	0.1uF		25V (M555ES)
C824	1-104-665-11	ELECT	100uF	20%	10V (M555ES)
C825	1-163-038-00	CERAMIC CHIP	0.1uF		25V (M555ES)
C827	1-109-982-11	CERAMIC CHIP	1uF	10%	10V (M555ES)
C828	1-102-965-00	CERAMIC	39PF	5%	50V (M555ES)
C829	1-141-227-00	CAP, TRIMMER	20PF (M555ES)		
C830	1-102-961-00	CERAMIC	27PF	5%	50V (M555ES)
C831	1-104-665-11	ELECT	100uF	20%	10V (M555ES)
C832	1-163-038-00	CERAMIC CHIP	0.1uF		25V (M555ES)
C833	1-104-665-11	ELECT	100uF	20%	10V (M555ES)
C913	1-126-768-11	ELECT	2200uF	20%	16V
C914	1-126-768-11	ELECT	2200uF	20%	16V
C917	1-126-012-11	ELECT	470uF	20%	16V
C918	1-126-012-11	ELECT	470uF	20%	16V
C923	1-126-768-11	ELECT	2200uF	20%	16V
C927	1-126-925-11	ELECT	470uF	20%	10V
C928	1-126-925-11	ELECT	470uF	20%	10V (M555ES)
C929	1-126-925-11	ELECT	470uF	20%	10V
C934	1-126-933-11	ELECT	100uF	20%	16V
C935	1-104-665-11	ELECT	100uF	20%	10V
C936	1-126-962-11	ELECT	3.3uF	20%	50V
C938	1-126-925-11	ELECT	470uF	20%	10V
C941	1-126-935-11	ELECT	470uF	20%	16V
C942	1-126-935-11	ELECT	470uF	20%	16V
C943	1-126-948-11	ELECT	100uF	20%	35V
C944	1-126-948-11	ELECT	100uF	20%	35V
C945	1-104-665-11	ELECT	100uF	20%	10V
C951	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C952	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C953	1-104-665-11	ELECT	100uF	20%	10V
C954	1-163-038-00	CERAMIC CHIP	0.1uF		25V
		< CONNECTOR >			
* CN501	1-568-839-11	SOCKET, CONNECTOR 23P			
* CN502	1-569-306-11	SOCKET, CONNECTOR (L TYPE) 15P			
CN503	1-568-947-41	PIN, CONNECTOR 9P (M555ES)			
* CN503	1-568-944-41	PIN, CONNECTOR 6P (M333ES)			
* CN504	1-568-951-11	PIN, CONNECTOR 2P			
* CN505	1-568-947-11	PIN, CONNECTOR 9P			
* CN506	1-568-943-11	PIN, CONNECTOR 5P			
* CN801	1-506-486-11	PIN, CONNECTOR 7P			
* CN901	1-564-524-11	PLUG, CONNECTOR 9P			
* CN903	1-568-947-11	PIN, CONNECTOR 9P			

Ref. No.	Part No.	Description	Remark
		< DIODE >	
D201	8-719-988-61	DIODE 1SS355TE-17	
D352	8-719-988-61	DIODE 1SS355TE-17	
D354	8-719-988-61	DIODE 1SS355TE-17	
D501	8-719-988-61	DIODE 1SS355TE-17	
D521	8-719-053-18	DIODE 1SR154-400TE-25	
D580	8-719-988-61	DIODE 1SS355TE-17 (M555ES)	
D917	8-719-048-98	DIODE RB160L-40TE25	
D918	8-719-048-98	DIODE RB160L-40TE25	
D941	8-719-069-56	DIODE UDZS-TE17-6.2B	
D942	8-719-056-94	DIODE UDZ-TE-17-20B	
		< ENCAPSULATED COMPONENT >	
FL801	1-236-163-21	ENCAPSULATED COMPONENT (M555ES)	
		< IC >	
IC201	8-759-527-07	IC CXD8735N	
IC202	8-759-361-58	IC CXA8055M	
IC301	8-759-712-02	IC NJM2114D	
IC302	8-759-712-02	IC NJM2114D	
IC303	8-759-712-02	IC NJM2114D	
IC401	8-759-712-02	IC NJM2114D	
IC402	8-759-712-02	IC NJM2114D	
IC403	8-759-712-02	IC NJM2114D	
IC501	8-759-688-16	IC M30622MGA-309FP (M555ES)	
IC501	8-759-688-17	IC M30620MC-412FP (M333ES)	
IC502	8-759-666-99	IC TMP87C447U-1F23 (M555ES)	
IC503	8-759-267-85	IC SN74HC00ANS-E05 (M555ES)	
IC504	8-759-497-29	IC LC35256DM-70-TLM	
IC505	8-759-925-74	IC SN74HC04ANS	
IC802	8-759-665-94	IC MB90096PF-G-203-BND (M555ES)	
IC803	8-752-080-00	IC CXA2075M (M555ES)	
IC804	8-752-326-08	IC CXD1159Q (M555ES)	
IC805	8-759-933-65	IC SN74LS244NS (M555ES)	
IC901	8-749-921-12	IC GP1F32T (DIGITAL OUT OPTICAL)	
IC910	8-759-231-53	IC M5F7805S	
IC911	8-759-604-90	IC M5F7907L	
IC920	8-759-605-00	IC M5F78M07L	
IC921	8-759-231-53	IC M5F7805S (M555ES)	
IC922	8-759-231-53	IC M5F7805S	
IC930	8-759-173-39	IC NJU7201L50-T3	
IC931	8-759-658-02	IC BA3993F	
		< JACK >	
J801	1-774-227-11	JACK, PIN 1P (MONITOR OUT) (M555ES)	
* J901	1-764-188-11	JACK (SMALL TYPE) (DIA. 3.5)	(CONTROL A1 II)
* J902	1-764-188-11	JACK (SMALL TYPE) (DIA. 3.5)	(CONTROL A1 II)
J903	1-793-524-11	JACK, PIN 4P (ANALOG OUT, 2ND CD IN)	
		< COIL/ FERRITE BEAD/ SHORT >	
L201	1-410-375-11	INDUCTOR CHIP 3.3uH	
L202	1-410-375-11	INDUCTOR CHIP 3.3uH	
L204	1-414-234-22	FERRITE BEAD	
L205	1-414-234-22	FERRITE BEAD	
L206	1-414-234-22	FERRITE BEAD	

MAIN

Ref. No.	Part No.	Description			Remark
L207	1-414-234-22	FERRITE BEAD			
L208	1-414-234-22	FERRITE BEAD			
L209	1-414-234-22	FERRITE BEAD			
L211	1-414-234-22	FERRITE BEAD			
L212	1-216-295-00	SHORT	0		
L213	1-414-234-22	FERRITE BEAD			
L214	1-414-234-22	FERRITE BEAD			
L591	1-216-295-00	SHORT	0 (M555ES)		
L591	1-414-234-22	FERRITE BEAD (M333ES)			
L592	1-216-295-00	SHORT	0 (M555ES)		
L592	1-414-234-22	FERRITE BEAD (M333ES)			
L801	1-408-613-31	INDUCTOR	68uH (M555ES)		
L802	1-216-295-00	SHORT	0 (M555ES)		
L804	1-414-234-22	FERRITE BEAD (M555ES)			
L805	1-216-295-00	SHORT	0 (M555ES)		
L806	1-216-295-00	SHORT	0 (M555ES)		
L807	1-414-234-22	FERRITE BEAD (M555ES)			
L808	1-216-295-00	SHORT	0 (M555ES)		
L809	1-216-295-00	SHORT	0 (M555ES)		
L813	1-410-375-11	INDUCTOR CHIP	3.3uH (M555ES)		
L901	1-216-295-00	SHORT	0		
L902	1-216-295-00	SHORT	0		
L903	1-216-295-00	SHORT	0		
L950	1-216-295-00	SHORT	0		
L951	1-410-375-11	INDUCTOR CHIP	3.3uH		
		< TRANSISTOR >			
Q336	8-729-141-26	TRANSISTOR	2SC3622A-LK		
Q337	8-729-141-26	TRANSISTOR	2SC3622A-LK		
Q338	8-729-141-26	TRANSISTOR	2SC3622A-LK		
Q351	8-729-029-56	TRANSISTOR	DTA144ESA		
Q352	8-729-029-56	TRANSISTOR	DTA144ESA		
Q353	8-729-029-56	TRANSISTOR	DTA144ESA		
Q354	8-729-029-56	TRANSISTOR	DTA144ESA		
Q436	8-729-141-26	TRANSISTOR	2SC3622A-LK		
Q437	8-729-141-26	TRANSISTOR	2SC3622A-LK		
Q438	8-729-141-26	TRANSISTOR	2SC3622A-LK		
Q451	8-729-029-56	TRANSISTOR	DTA144ESA		
Q521	8-729-030-08	TRANSISTOR	DTC144VSA		
Q552	8-729-029-56	TRANSISTOR	DTA144ESA		
Q562	8-729-029-56	TRANSISTOR	DTA144ESA		
Q570	8-729-029-66	TRANSISTOR	DTC114ESA		
Q571	8-729-029-66	TRANSISTOR	DTC114ESA		
Q572	8-729-029-66	TRANSISTOR	DTC114ESA		
Q576	8-729-422-57	TRANSISTOR	UN4111		
Q580	8-729-029-66	TRANSISTOR	DTC114ESA (M555ES)		
Q581	8-729-620-05	TRANSISTOR	2SC2603-EF (M555ES)		
Q941	8-729-140-97	TRANSISTOR	2SB734-34		
Q950	8-729-620-05	TRANSISTOR	2SC2603-EF		
		< RESISTOR >			
R201	1-216-033-00	METAL CHIP	220	5%	1/10W
R202	1-216-113-00	METAL CHIP	470K	5%	1/10W
R203	1-216-049-11	RES-CHIP	1K	5%	1/10W
R204	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R205	1-216-025-00	RES-CHIP	100	5%	1/10W
R207	1-216-025-00	RES-CHIP	100	5%	1/10W
R301	1-216-639-11	METAL CHIP	330	0.5%	1/10W

Ref. No.	Part No.	Description			Remark
R302	1-216-639-11	METAL CHIP	330	0.5%	1/10W
R303	1-216-633-11	METAL CHIP	180	0.5%	1/10W
R304	1-216-633-11	METAL CHIP	180	0.5%	1/10W
R305	1-216-607-11	METAL CHIP	15	0.5%	1/10W
R306	1-216-607-11	METAL CHIP	15	0.5%	1/10W
R307	1-216-607-11	METAL CHIP	15	0.5%	1/10W
R308	1-216-607-11	METAL CHIP	15	0.5%	1/10W
R309	1-216-073-00	METAL CHIP	10K	5%	1/10W
R310	1-216-637-11	METAL CHIP	270	0.5%	1/10W
R311	1-216-637-11	METAL CHIP	270	0.5%	1/10W
R312	1-216-681-11	METAL CHIP	18K	0.5%	1/10W
R313	1-216-681-11	METAL CHIP	18K	0.5%	1/10W
R314	1-216-681-11	METAL CHIP	18K	0.5%	1/10W
R315	1-216-681-11	METAL CHIP	18K	0.5%	1/10W
R316	1-216-650-11	METAL CHIP	910	0.5%	1/10W
R317	1-216-657-11	METAL CHIP	1.8K	0.5%	1/10W
R318	1-216-643-11	METAL CHIP	470	0.5%	1/10W
R319	1-216-675-91	METAL CHIP	10K	0.5%	1/10W
R321	1-216-646-11	METAL CHIP	620	0.5%	1/10W
R322	1-216-675-91	METAL CHIP	10K	0.5%	1/10W
R323	1-216-675-91	METAL CHIP	10K	0.5%	1/10W
R324	1-216-675-91	METAL CHIP	10K	0.5%	1/10W
R325	1-218-760-11	METAL CHIP	220K	0.5%	1/10W
R326	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R327	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R328	1-216-673-11	METAL CHIP	8.2K	0.5%	1/10W
R336	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R337	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R338	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R339	1-216-047-00	RES-CHIP	820	5%	1/10W
R340	1-218-768-11	METAL CHIP	470K	0.5%	1/10W
R341	1-218-768-11	METAL CHIP	470K	0.5%	1/10W
R342	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R351	1-216-097-00	RES-CHIP	100K	5%	1/10W
R352	1-216-097-00	RES-CHIP	100K	5%	1/10W
R353	1-216-097-00	RES-CHIP	100K	5%	1/10W
R354	1-216-097-00	RES-CHIP	100K	5%	1/10W
R401	1-216-639-11	METAL CHIP	330	0.5%	1/10W
R402	1-216-639-11	METAL CHIP	330	0.5%	1/10W
R403	1-216-633-11	METAL CHIP	180	0.5%	1/10W
R404	1-216-633-11	METAL CHIP	180	0.5%	1/10W
R405	1-216-607-11	METAL CHIP	15	0.5%	1/10W
R406	1-216-607-11	METAL CHIP	15	0.5%	1/10W
R407	1-216-607-11	METAL CHIP	15	0.5%	1/10W
R408	1-216-607-11	METAL CHIP	15	0.5%	1/10W
R410	1-216-637-11	METAL CHIP	270	0.5%	1/10W
R411	1-216-637-11	METAL CHIP	270	0.5%	1/10W
R412	1-216-681-11	METAL CHIP	18K	0.5%	1/10W
R413	1-216-681-11	METAL CHIP	18K	0.5%	1/10W
R414	1-216-681-11	METAL CHIP	18K	0.5%	1/10W
R415	1-216-681-11	METAL CHIP	18K	0.5%	1/10W
R416	1-216-650-11	METAL CHIP	910	0.5%	1/10W
R417	1-216-657-11	METAL CHIP	1.8K	0.5%	1/10W
R418	1-216-643-11	METAL CHIP	470	0.5%	1/10W
R419	1-216-675-91	METAL CHIP	10K	0.5%	1/10W
R421	1-216-646-11	METAL CHIP	620	0.5%	1/10W
R422	1-216-675-91	METAL CHIP	10K	0.5%	1/10W
R423	1-216-675-91	METAL CHIP	10K	0.5%	1/10W

Ref. No.	Part No.	Description			Remark
R424	1-216-675-91	METAL CHIP	10K	0.5%	1/10W
R425	1-218-760-11	METAL CHIP	220K	0.5%	1/10W
R426	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R427	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R428	1-216-673-11	METAL CHIP	8.2K	0.5%	1/10W
R436	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R437	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R438	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R440	1-218-768-11	METAL CHIP	470K	0.5%	1/10W
R441	1-218-768-11	METAL CHIP	470K	0.5%	1/10W
R442	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R451	1-216-097-00	RES-CHIP	100K	5%	1/10W
R503	1-216-097-00	RES-CHIP	100K	5%	1/10W
R504	1-216-073-00	METAL CHIP	10K	5%	1/10W
R508	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R509	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R510	1-216-025-00	RES-CHIP	100	5%	1/10W
R511	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R512	1-216-073-00	METAL CHIP	10K	5%	1/10W
R513	1-216-073-00	METAL CHIP	10K	5%	1/10W
R514	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R515	1-216-045-00	METAL CHIP	680	5%	1/10W
R517	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R518	1-216-089-00	RES-CHIP	47K	5%	1/10W
R519	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R520	1-216-073-00	METAL CHIP	10K	5%	1/10W
R521	1-216-073-00	METAL CHIP	10K	5%	1/10W
R522	1-220-251-11	RES-CHIP	33	5%	1/2W
R525	1-216-073-00	METAL CHIP	10K	5%	1/10W
R526	1-216-073-00	METAL CHIP	10K	5%	1/10W
R527	1-216-073-00	METAL CHIP	10K	5%	1/10W
R528	1-216-073-00	METAL CHIP	10K	5%	1/10W
R529	1-216-073-00	METAL CHIP	10K	5%	1/10W
R530	1-216-073-00	METAL CHIP	10K	5%	1/10W
R531	1-216-073-00	METAL CHIP	10K	5%	1/10W
R532	1-216-049-11	RES-CHIP	1K	5%	1/10W
R533	1-216-049-11	RES-CHIP	1K	5%	1/10W
R534	1-216-073-00	METAL CHIP	10K	5%	1/10W
R535	1-216-073-00	METAL CHIP	10K	5%	1/10W
R536	1-216-073-00	METAL CHIP	10K	5%	1/10W
R551	1-216-025-00	RES-CHIP	100	5%	1/10W
R552	1-216-025-00	RES-CHIP	100	5%	1/10W
R553	1-216-025-00	RES-CHIP	100	5%	1/10W
R554	1-216-049-11	RES-CHIP	1K	5%	1/10W
R570	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R571	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R580	1-216-073-00	METAL CHIP	10K	5%	1/10W (M555ES)
R581	1-216-073-00	METAL CHIP	10K	5%	1/10W (M555ES)
R582	1-216-073-00	METAL CHIP	10K	5%	1/10W (M555ES)
R583	1-216-065-00	RES-CHIP	4.7K	5%	1/10W (M555ES)
R584	1-216-089-00	RES-CHIP	47K	5%	1/10W (M555ES)
R585	1-216-073-00	METAL CHIP	10K	5%	1/10W (M555ES)
R591	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R592	1-216-025-00	RES-CHIP	100	5%	1/10W
R593	1-216-025-00	RES-CHIP	100	5%	1/10W
R801	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W (M555ES)
R802	1-216-661-11	METAL CHIP	2.7K	0.5%	1/10W (M555ES)
R803	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W (M555ES)
R804	1-216-661-11	METAL CHIP	2.7K	0.5%	1/10W (M555ES)
R805	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W (M555ES)
R806	1-216-661-11	METAL CHIP	2.7K	0.5%	1/10W (M555ES)
R807	1-216-644-11	METAL CHIP	510	0.5%	1/10W (M555ES)
R808	1-216-644-11	METAL CHIP	510	0.5%	1/10W (M555ES)
R809	1-216-644-11	METAL CHIP	510	0.5%	1/10W (M555ES)
R810	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (M555ES)
R811	1-216-057-00	METAL CHIP	2.2K	5%	1/10W (M555ES)
R812	1-216-073-00	METAL CHIP	10K	5%	1/10W (M555ES)
R813	1-216-631-11	METAL CHIP	150	0.5%	1/10W (M555ES)
R815	1-216-624-11	METAL CHIP	75	0.5%	1/10W (M555ES)
R816	1-216-675-91	METAL CHIP	10K	0.5%	1/10W (M555ES)
R817	1-216-025-00	RES-CHIP	100	5%	1/10W (M555ES)
R818	1-216-025-00	RES-CHIP	100	5%	1/10W (M555ES)
R819	1-216-025-00	RES-CHIP	100	5%	1/10W (M555ES)
R823	1-218-776-11	METAL CHIP	1M	0.5%	1/10W (M555ES)
R824	1-216-633-11	METAL CHIP	180	0.5%	1/10W (M555ES)
R825	1-216-628-11	METAL CHIP	110	0.5%	1/10W (M555ES)
R826	1-216-641-11	METAL CHIP	390	0.5%	1/10W (M555ES)
R829	1-216-049-11	RES-CHIP	1K	5%	1/10W (M555ES)
R831	1-216-025-00	RES-CHIP	100	5%	1/10W (M555ES)
R832	1-216-025-00	RES-CHIP	100	5%	1/10W (M555ES)
R833	1-216-025-00	RES-CHIP	100	5%	1/10W (M555ES)
R834	1-216-025-00	RES-CHIP	100	5%	1/10W (M555ES)
R901	1-216-295-00	SHORT	0		
R931	1-216-105-00	RES-CHIP	220K	5%	1/10W
R941	1-216-308-00	METAL CHIP	4.7	5%	1/10W
R942	1-216-304-11	METAL CHIP	3.3	5%	1/10W
R943	1-216-057-00	METAL CHIP	2.2K	5%	1/10W

MAIN | TRANS

Ref. No.	Part No.	Description			Remark
R944	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R950	1-216-065-00	RES-CHIP	4.7K	5%	1/10W
R951	1-216-073-00	METAL CHIP	10K	5%	1/10W
R952	1-216-001-00	METAL CHIP	10	5%	1/10W
		< VARIABLE RESISTOR >			
RV501	1-241-765-11	RES, ADJ, CARBON 22K			
		< TEST PIN >			
* TP1	1-568-449-11	HOUSING, CONNECTOR (PC BOARD) 3P			
* TP2	1-566-968-11	HOUSING, CONNECTOR (PC BOARD) 6P			
* TP3	1-568-450-11	HOUSING, CONNECTOR (PC BOARD) 4P			
		< VIBRATOR >			
X201	1-760-955-11	VIBRATOR, CRYSTAL (45MHz)			
X501	1-579-175-11	VIBRATOR, CERAMIC (10MHz)			
X580	1-767-938-21	VIBRATOR, CERAMIC (7.28MHz) (M555ES)			
X801	1-567-878-11	OSCILLATOR, CRYSTAL (14.31818MHz)			(M555ES)
**********					
	A-4725-078-A	TRANS BOARD, COMPLETE			
		**********			
	7-685-871-01	SCREW +BVTT 3X6 (S)			
		< CAPACITOR >			
C901	1-126-936-11	ELECT	3300uF	20%	16V
C902	1-126-960-11	ELECT	1uF	20%	50V
C911	1-128-576-11	ELECT	100uF	20%	63V
C912	1-126-948-11	ELECT	100uF	20%	35V
C920	1-161-494-00	CERAMIC	0.022uF		25V
C921	1-126-768-11	ELECT	2200uF	20%	16V
C922	1-126-768-11	ELECT	2200uF	20%	16V
C930	1-161-494-00	CERAMIC	0.022uF		25V
C931	1-126-768-11	ELECT	2200uF	20%	16V
C932	1-126-768-11	ELECT	2200uF	20%	16V
C933	1-126-967-11	ELECT	47uF	20%	50V
C940	1-136-173-00	MYLAR	0.47uF	5%	50V
C941	1-136-173-00	MYLAR	0.47uF	5%	50V
C942	1-109-953-11	ELECT	2.2uF	20%	50V
C943	1-164-159-11	CERAMIC	0.1uF		50V
C951	1-136-173-00	MYLAR	0.47uF	5%	50V
C961	1-136-165-00	MYLAR	0.1uF	5%	50V
C962	1-164-159-11	CERAMIC	0.1uF		50V
C963	1-164-159-11	CERAMIC	0.1uF		50V
C971	1-136-165-00	MYLAR	0.1uF	5%	50V
C972	1-164-159-11	CERAMIC	0.1uF		50V
C973	1-164-159-11	CERAMIC	0.1uF		50V
⚠C991	1-113-925-11	CERAMIC	0.01uF	20%	250V
		< CONNECTOR >			
CN601	1-506-469-11	PIN, CONNECTOR 4P			
* CN602	1-506-469-11	PIN, CONNECTOR 4P			
* CN603	1-568-951-11	PIN, CONNECTOR 2P			
* CN991	1-580-230-11	PIN, CONNECTOR (PC BOARD) 2P			
CNP902	1-691-767-11	PLUG (MICRO CONNECTOR) 5P			

Ref. No.	Part No.	Description			Remark
		< DIODE >			
D901	8-719-210-21	DIODE 11EQS04			
D902	8-719-210-21	DIODE 11EQS04			
D903	8-719-210-21	DIODE 11EQS04			
D904	8-719-210-21	DIODE 11EQS04			
D905	8-719-911-19	DIODE 1SS119-25			
D906	8-719-911-19	DIODE 1SS119-25			
D907	8-719-911-19	DIODE 1SS119-25			
D911	8-719-024-99	DIODE 11ES2-NTA2B			
D912	8-719-150-92	DIODE RD33EBT			
D913	8-719-109-93	DIODE RD6.2ESB2			
D921	8-719-024-99	DIODE 11ES2-NTA2B			
D922	8-719-024-99	DIODE 11ES2-NTA2B			
D923	8-719-024-99	DIODE 11ES2-NTA2B			
D924	8-719-024-99	DIODE 11ES2-NTA2B			
D931	8-719-200-77	DIODE 10E2N			
D932	8-719-200-77	DIODE 10E2N			
D933	8-719-200-77	DIODE 10E2N			
D934	8-719-200-77	DIODE 10E2N			
D935	8-719-110-41	DIODE RD15ESB2			
D991	8-719-911-19	DIODE 1SS119-25			
		< IC >			
IC941	8-759-822-38	IC LA6510			
IC961	8-759-822-38	IC LA6510			
		< LINE FILTER >			
⚠L991	1-424-485-11	FILTER, LINE			
		< TRANSISTOR >			
Q901	8-729-620-05	TRANSISTOR	2SC2603-EF		
Q911	8-729-140-97	TRANSISTOR	2SB734-34		
Q931	8-729-620-05	TRANSISTOR	2SC2603-EF		
Q941	8-729-029-56	TRANSISTOR	DTA144ESA		
Q942	8-729-030-02	TRANSISTOR	DTC144ESA		
Q951	8-729-029-56	TRANSISTOR	DTA144ESA		
Q952	8-729-030-02	TRANSISTOR	DTC144ESA		
		< RESISTOR >			
R901	1-249-417-11	CARBON	1K	5%	1/4W
R902	1-249-429-11	CARBON	10K	5%	1/4W
R903	1-249-421-11	CARBON	2.2K	5%	1/4W
R904	1-249-429-11	CARBON	10K	5%	1/4W
R911	1-247-843-11	CARBON	3.3K	5%	1/4W
R912	1-249-421-11	CARBON	2.2K	5%	1/4W
R913	1-249-425-11	CARBON	4.7K	5%	1/4W
R914	1-247-807-31	CARBON	100	5%	1/4W
R931	1-249-419-11	CARBON	1.5K	5%	1/4W
R932	1-249-419-11	CARBON	1.5K	5%	1/4W
R940	1-247-807-31	CARBON	100	5%	1/4W
R941	1-247-807-31	CARBON	100	5%	1/4W
R942	1-249-421-11	CARBON	2.2K	5%	1/4W
R943	1-249-441-11	CARBON	100K	5%	1/4W
R944	1-249-417-11	CARBON	1K	5%	1/4W
R945	1-249-441-11	CARBON	100K	5%	1/4W
R946	1-247-883-00	CARBON	150K	5%	1/4W
R947	1-249-425-11	CARBON	4.7K	5%	1/4W

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Ref. No.	Part No.	Description			Remark
R948	1-249-382-11	CARBON	1.2	5%	1/6W
R949	1-249-382-11	CARBON	1.2	5%	1/6W
R951	1-247-807-31	CARBON	100	5%	1/4W
R952	1-249-421-11	CARBON	2.2K	5%	1/4W
R953	1-249-441-11	CARBON	100K	5%	1/4W
R954	1-249-417-11	CARBON	1K	5%	1/4W
R955	1-249-441-11	CARBON	100K	5%	1/4W
R956	1-247-883-00	CARBON	150K	5%	1/4W
R957	1-249-425-11	CARBON	4.7K	5%	1/4W
R958	1-249-382-11	CARBON	1.2	5%	1/6W
R959	1-249-382-11	CARBON	1.2	5%	1/6W
R961	1-247-883-00	CARBON	150K	5%	1/4W
R962	1-247-860-11	CARBON	16K	5%	1/4W
R963	1-247-883-00	CARBON	150K	5%	1/4W
R964	1-247-883-00	CARBON	150K	5%	1/4W
R965	1-249-431-11	CARBON	15K	5%	1/4W
R966	1-249-382-11	CARBON	1.2	5%	1/6W
R967	1-249-382-11	CARBON	1.2	5%	1/6W
R968	1-249-393-11	CARBON	10	5%	1/4W
R971	1-247-883-00	CARBON	150K	5%	1/4W
R972	1-247-860-11	CARBON	16K	5%	1/4W
R973	1-247-885-00	CARBON	180K	5%	1/4W
R974	1-247-885-00	CARBON	180K	5%	1/4W
R975	1-249-431-11	CARBON	15K	5%	1/4W
R976	1-249-382-11	CARBON	1.2	5%	1/6W
R977	1-249-382-11	CARBON	1.2	5%	1/6W
R978	1-249-393-11	CARBON	10	5%	1/4W
		< RELAY >			
⚠RY991	1-755-299-11	RELAY			
**********					
	1-676-828-11	T. SENS BOARD			
		**********			
		< CONNECTOR >			
* CN81	1-506-486-11	PIN, CONNECTOR 7P			
CN82	1-506-481-11	PIN, CONNECTOR 2P			
CN83	1-506-481-11	PIN, CONNECTOR 2P			
		< PHOTO INTERRUPTER >			
IC81	8-749-924-18	PHOTO INTERRUPTER RPI-1391 (TABLE POSITION SENSOR)			
IC82	8-749-924-18	PHOTO INTERRUPTER RPI-1391 (TABLE POSITION SENSOR)			
IC83	8-749-924-18	PHOTO INTERRUPTER RPI-1391 (TABLE POSITION SENSOR)			
IC84	8-749-924-18	PHOTO INTERRUPTER RPI-1391 (TABLE POSITION SENSOR)			
		< RESISTOR >			
R81	1-249-416-11	CARBON	820	5%	1/4W
R82	1-249-416-11	CARBON	820	5%	1/4W
R83	1-249-416-11	CARBON	820	5%	1/4W
R84	1-249-416-11	CARBON	820	5%	1/4W
R85	1-249-415-11	CARBON	680	5%	1/4W
**********					

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
4	1-500-386-11	FILTER, CLAMP (FERRITE CORE)	
5	1-792-466-11	WIRE (FLAT TYPE) (23 CORE)	
⚠14	1-783-531-41	CORD, POWER	
108	1-792-465-11	WIRE (FLAT TYPE) (15 CORE)	
⚠268	8-820-026-03	OPTICAL PICK-UP KSM-213BFN/C2NP	
271	1-769-069-11	WIRE (FLAT TYPE) (16 CORE)	
M601	1-541-309-11	MOTOR, L (RF-370C) (TABLE)	
M602	1-541-309-11	MOTOR, L (RF-370C) (LOADING)	
M603	1-541-632-11	MOTOR, DC (DOOR)	
⚠T901	1-433-666-11	TRANSFORMER, POWER	
⚠T911	1-435-327-11	TRANSFORMER, POWER	
**********			
		**********	
		HARDWARE LIST	
		**********	
#1	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
#2	7-685-650-79	SCREW +BVTP 3X16 TYPE2 N-S	
#3	7-685-648-79	SCREW, TAPPING	
#4	7-685-903-11	SCREW +PTPWH 3X6 (TYPE2)	
#5	7-685-645-79	SCREW +BVTP 3X6 TYPE2 N-S	
#6	7-624-106-04	STOPRING 3.0, TYPE-E	
#7	7-682-948-01	SCREW +PSW 3X8	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-418-828-11	REMOTE COMMANDER (RM-DX400)	(M333ES)
	1-418-829-11	REMOTE COMMANDER (RM-DX450)	(M555ES)
	1-751-619-11	CORD, CONNECTION (VIDEO) (M555ES)	
	1-776-263-11	CORD, CONNECTION (AUDIO)	
	1-777-172-11	CORD, CONNECTION (CONTROL A1II)	(Canadian)
	3-866-670-11	MANUAL, COMMONNESS INSTRUCTION (CONTROL A1II) (ENGLISH) (US)	
	3-866-670-21	MANUAL, COMMONNESS INSTRUCTION (CONTROL A1II) (ENGLISH, FRENCH, GERMAN, SPANISH, DUTCH, PORTUGUESE, SWEDISH, ITALIAN, CHINESE) (Canadian)	
	4-210-990-01	LID(RM-LJ301), BATTERY CASE (for RM-DX450) (M555ES)	
	4-229-440-11	MANUAL, INSTRUCTION (ENGLISH) (M333ES)	
	4-229-440-21	MANUAL, INSTRUCTION (FRENCH)	(M333ES: Canadian)
	4-229-441-11	MANUAL, INSTRUCTION (ENGLISH) (M555ES)	
	4-229-441-21	MANUAL, INSTRUCTION (FRENCH)	(M555ES: Canadian)
	4-981-643-01	COVER, BATTERY (for RM-DX400) (M333ES)	

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Sony Corporation
Audio Entertainment Group

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